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SOIL SURVEY INTERPRETATIONS FOR WOODLAND CONSERVATION

GEORGIA -------- PROGRESS REPORT

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U. S. Department of Agriculture
Soil Conservation Service

Cooperating with:

School of Forestry and
College Experiment Station, University of Georgia
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Georgia Forest Research Council

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SOIL SURVEY INTERPRETATION
FOR
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GEORGIA-------PROGRESS REPORT

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I. INTRODUCTION

There are many different kinds of soil. Research information and experience have shown that these may differ in their ability to produce wood or other crops. Management treatments required for economic crop production likewise differ with soils. There is much less general knowledge of how soils influence the use and management of land for the production of woodcrops than for the production of cultivated crops.

In recent years, more and more soils of Georgia have been devoted to wood crop production. To facilitate this growing agricultural enterprise a demand has arisen for more and better information about soils.

The Soil Conservation Service, working with the School of Forestry and the College Experiment Station at the University of Georgia, the Georgia Forestry Commission, the U. S. Forest Service, and the Georgia Forest Research Council, have studies underway to determine more about the relationships of soils to growth of trees and to woodland use and management. Interpretations of soil survey information are provided by the joint efforts of soil scientists, woodland conservationists, agronomists, and foresters.

There is an immediate need for information about potential soil productivity for different wood crops where conventional site index measurement cannot be made. Site index determinations cannot be made on cutover or recently converted agricultural land. Relating site index, the height of dominant and codominant trees at age 50 years, for a selected tree species or forest cover type, to the kind of soil on which measurable stands are growing is an initial step in providing interpretations of soil survey information for woodland conservation planning to meet this and other needs.

The purpose of this report is to supply immediate, useful, soil-woodland information for sound woodland conservation and to make a permanent record of basic measurement data. It will also provide a source of information for county soil survey reports and for the development of technical standards and guides used by the Soil Conservation Service in giving technical assistance to woodland owners and operators in Soil Conservation Districts. This report is based on the best information available at the present; however, it is subject to change or adjustment due to future findings.

This report summarizes the information obtained to date for six important pine species - slash, longleaf, shortleaf, loblolly, Virginia, and white pine - in the three geophysical provinces of Georgia. The soil-woodland data and the interpretations provide a method of determining those soils that might well be given the highest priority in the production of pine timber. Grouping together soils with similar productive potential and with similar kinds of responses to conservation treatments facilitates the use of soil survey information. Likewise, the grouping of soils according to limitations and hazards for production of wood crops aids in relating woodland conservation practices, such as thinnings, cleanings, planting and direct seeding, etc., to soil mapping units.

II. DESCRIPTION OF AREA

The forested area of Georgia, extending generally throughout the State, comprises 24,057,000 acres, or 64.3 percent of the total land area. Field data have been tabulated separately for three major resource areas (Figure 1), namely:

(1) The Limestone Valley and Mountain resource area,

(2) The Piedmont resource area, and

(3) The Coastal Plain resource area

The past and present land use and the current forest cover types found in the areas, the geology, topography, soils, and climate are discussed briefly in the following paragraphs.

The first major settlements in Georgia were along the Atlantic Coast and the Savannah River, occurring about the middle of the eighteenth century. The early settlers developed

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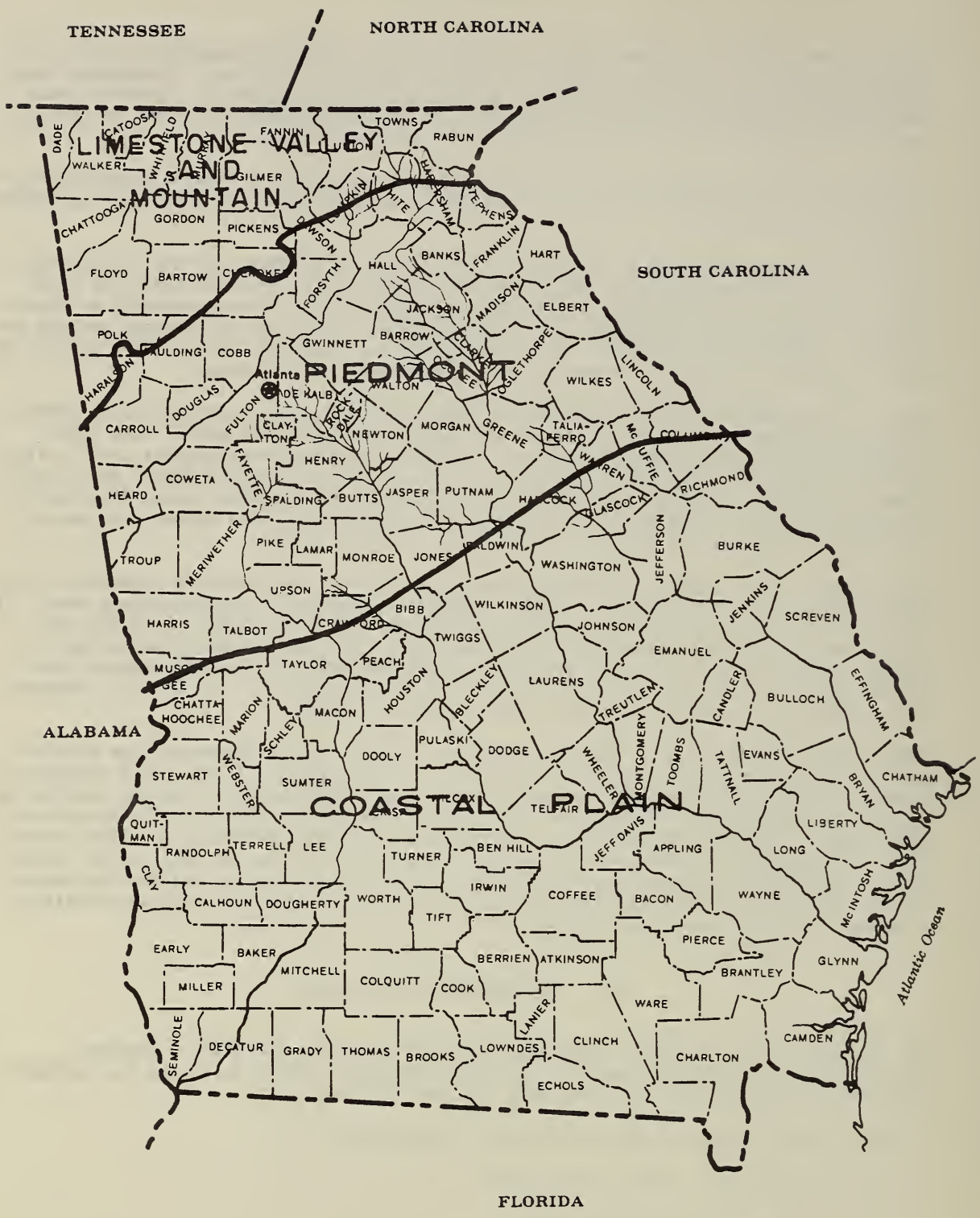

Figure 1.

Major Resource Areas of Georgia

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an agricultural economy based primarily on cotton, tobacco, grain, and cattle. By the middle of the nineteenth century virtually every acre of arable land in the Piedmont region, much of the bottomland and slopes of the Limestone Valley and Mountain area, and the better soils in the Coastal Plain, had been cultivated. Continual row cropping, especially for cotton, caused serious erosion on all the uplands and partially contributed to their abandonment from cultivation. Distinct periods of land abandonment occurred in: the War Between the States; the agricultural depression of the late 1880's; the period of boll weevil epidemics in the 1920's; and, more recently, the period of and following the Second World War. Following the abandonment, much of the farm land seeded into pure loblolly pine, shortleaf pine, Virginia pine, or scrub hardwoods and brush.

Throughout Georgia, oaks, hickories, and associated hardwoods (Figure 2) are the predominant climax type. Most of the present pine stands are the result of woods burning and agricultural land abandonment. Longleaf and slash pine are the principal species of the uplands in the Coastal Plain area, while oak, gum, cypress, and associated hardwoods and conifers occupy the swamps and stream bottoms.

Loblolly pine, shortleaf pine, and a mixture of oak, red gum, and pine occupy the uplands in the Piedmont region; and hardwoods occupy most of the bottomlands and some of the steeper and lower slopes.

Loblolly and shortleaf pine predominate in the southerly and westerly parts of the Limestone Valley and Mountain area. Virginia pine and white pine are more common at higher elevations and in the northerly part of the area. A wide variety of hardwood species is found throughout.

The Appalachian Valley and Ridges comprise the Paleozoic soil area and occur in the northwestern part of the state. The Blue Ridge Mountain area in the northeastern part of the state and the Piedmont Plateau province make up the pre-Cambrian or Crystalline area. The average elevation in the mountain area is nearly 2,000 feet, although many mountains are more than double this height. The Piedmont Plateau area lies below the mountains and ranges from about 1,200 feet in elevation at the northern boundary to about 600 feet where it merges with the Coastal Plain to the south.

The Coastal Plain includes all the area lying south of the Fall Line, or Belt, connecting the cities of Augusta, Milledgeville, Macon, and Columbus. The area is derived largely from marine sediments made up of sands, sandy limestones, and clays with sands predominating.

The northern half of the state is characterized by Red-Yellow Podzolic soils on ridges and Lithosolic soils on slopes. The pattern of soils in the Valley and Ridge province is controlled largely by topography and parent material. Lithosols occur on the high ridges, Red-Yellow Podzolic soils on low ridges and slopes, and alluvial terraces in valleys. The Mountain province is characterized by steep slopes with their narrow flood plains and the hilly to rolling intermountain plateaus. The upper Piedmont is characterized by hilly to rolling topography and the lower Piedmont by broad, undulating to gently rolling interstream areas. Red-Yellow Podzolic soils intergrade toward the Reddish-Brown Lateritic or Planosolic soil groups.

Topography in the upper and middle Coastal Plains is nearly level to gently rolling. The Reddish-Brown Lateritic soils and the Red-Yellow Podzolic soils predominate, but intergrade into Regosols, Planosols, and Humic Gleys. The Coastal Flatwoods is characterized by nearly level topography and intermediate to poorly drained soils classified as Regosols, Humic Gleys, or Ground Water Podzols.

For a detailed description of soils in Georgia, the reader is referred to a publication by Giddens, Perkins and Carter (1960), and individual county soil survey reports as they become available.

The climate of Georgia is controlled largely by its latitude, altitude, and proximity to large bodies of semitropical water. The average temperature exceeds 70°F. for all months from May to September. Figure 3 illustrates the average number of frost-free days for the state. The average amount of rainfall recorded has varied from a high of 70 inches to a low of 30 inches. Variations in rainfall between geographical regions, from season to season, and from year to year are considerable. The fall season is the driest of the year but drought conditions are likely to occur at intervals from May to September in most of the state. The average annual rainfall for the state is shown in Figure 4.

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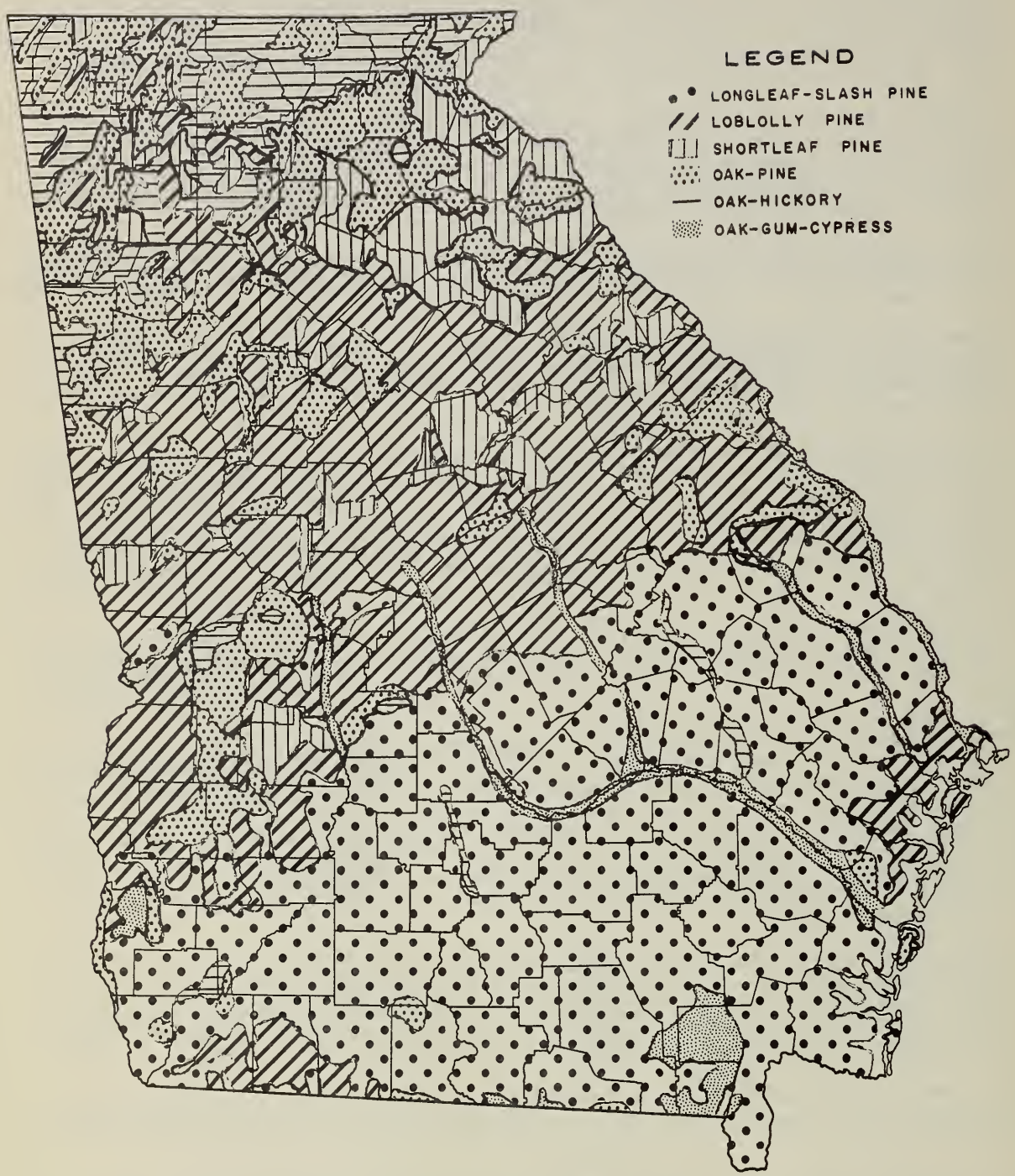

Figure 2.

Major Forest Cover Types of Georgia
(Information from: U.S.D.A. Forest Service, 1956 Forest Resource Report #12.)

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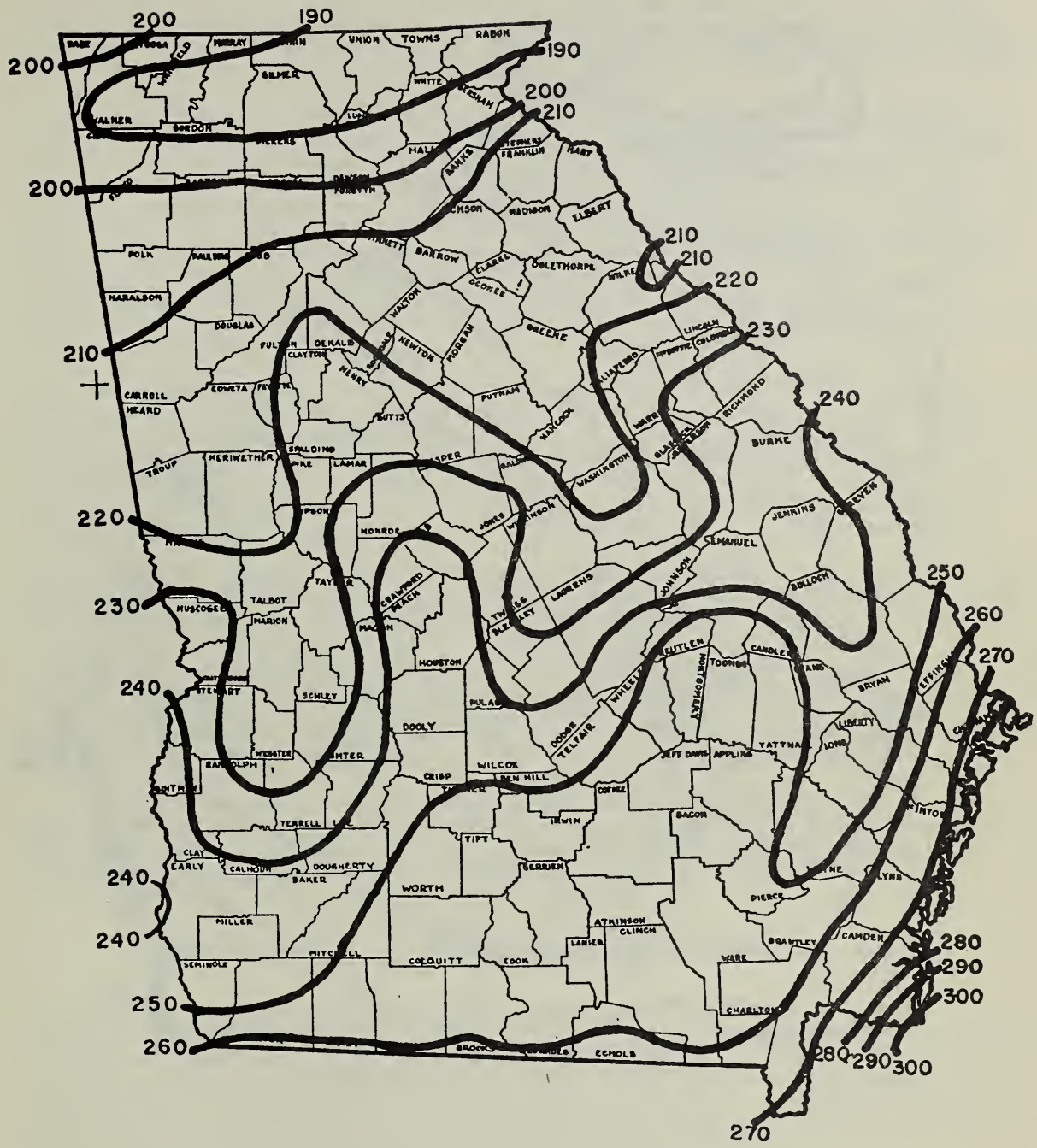

Figure 3.

Average Number of Frost-free Days in Georgia
(from Climate and Man, U.S. Dep. Agr. Yearbook, 1941).

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Figure 4.

Average Annual Rainfall in Georgia
(from Climate and Man, U.S. Dep. Agr. Yearbook, 1941)

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III. PREVIOUS RELATED WORK

A number of studies have been reported, especially during the past ten years, showing the relationship between soils and the growth of trees. Some of these studies apply directly to the species and area included in the present report. A brief review of some of the reports is included in the following paragraphs. No attempt is made to give a complete literature review. Readers are referred to the original papers and to more complete literature sources that are adequately referenced in them.

Turner (1936, 1937) was among the first to publish information concerning soil-woodland relationships in the United States. He studied 222 plots in shortleaf and loblolly pine stands in the Forested Coastal Plain Area of Arkansas. Site index and rate of volume growth was obtained on 22 soil types. The results are discussed by site quality groupings of soils - six site classes being recognized for loblolly pine and four for shortleaf pine. Turner used county soil surveys published between 1914 and 1925 as a basis for identifying soils as they were examined in the field. In order to group plot information so that like site quality would be shown, it was necessary for the author to recognize soil phases not shown in soil mapping then in use. This indicated that the mapping units were too broad to provide the necessary control for practical woodland management based on soil survey information.

Coile and Schumacher (1953), Coile (1935, 1948, 1952) and many of his students during the period from 1931 and 1953 investigated the relationship between a large number of soil properties and the site index of natural, even-aged stands of southern pines. They found that site index of four species of southern pine was determined by, or closely related to, several soil characteristics, namely: depth of surface soil, depth to mottling, texture of the subsoil, consistence of the subsoil, moisture equivalent of the subsoil, and imbibitional water value of the subsoil.

Barnes and Ralston (1952), McGee (1957), and Row (1960) investigated the soil-site relations of pine plantations in the Coastal Plain. They found that the soil factors having the greatest influence on growth were: (1) thickness of the A horizon, (2) depth to a fine-textured horizon, and (3) depth to a mottled horizon or organic hardpan.

Chandler, et al (1943) reported studies on 14, mostly one-acre plots of shortleaf and loblolly pine stands near the center of the Eastern Texas Pine Belt. They found that soil type proved to be a very valuable indicator of site quality for loblolly and shortleaf pine.

E. L. Stone, in an unpublished manuscript, (1953), stressed the need for more adequate means of classifying productive capacity for pine other than by site index measurement. He suggested the possibility of relating soil-site relationships to conventional soil types, thus facilitating the use of existing information.

IV. COLLECTION OF INFORMATION

Field work, on which this report is based, was collected by technicians from the cooperating agencies during the period of 1950 to 1960. The agency responsible for each sample is indicated in Tables 1 through 10 in Appendix D by appropriate symbol. Some data were gathered in South Carolina from counties adjoining the Georgia line and conform with the present national policy of integrating data across state lines. Information from each location was recorded on especially designed forms. Locations were selected by soil scientists and woodland conservationists or foresters working together.

The report is based in part on a study of 955 locations sampling 168 different kinds of soil. The sampling included 59 locations of slash pine, 129 of longleaf pine, 333 of loblolly pine, 114 of Virginia pine, 50 of white pine, and 270 of shortleaf pine. (Tables 1 through 10 in Appendix D.)

Careful attention was given to the forest stand and the individual trees available for measurement in deciding on the suitability of a location. Only well-stocked stands of natural origin were measured. Stands that might have been influenced abnormally by such things as fire, insects, diseases, weather, management, or use were avoided. Only domi-

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nant or codominant, apparently healthy, uninjured trees were measured. From one to six acceptable trees were measured at each location. Measurements included: ring count at breast height obtained by increment borings and total height to the nearest foot measured by means of an Abney hand level and tape. Three years were added to the ring count to correct it to total age for loblolly and slash pine. Four years were added for shortleaf, Virginia, and white pine and seven years for longleaf pine.

Site index was determined and posted to the location records for each tree and then averaged for each location where more than one tree was measured. Site index curves used were: loblolly and shortleaf pines - Coile and Schumacher (1953); longleaf and slash pines - U. S. Department of Agriculture (1929); Virginia pine - Chaiken and Nelson (1959); white pine - Doolittle and Vimmerstedt (1960).

Soils over a prospective location were examined by spade or auger to identify the soil series and type and to make certain of uniformity. Records were made of such things as texture of the surface soil, slope and erosion classes, and other profile characteristics. The soils were identified and named in accordance with SCS standards.

In addition to soil and tree information, other items were observed at each location. These included such things as aspect, functional slope position, stand density, and understory density. The average length of the frost-free period (Figure 3), average annual precipitation (Figure 4), and average precipitation during the frost-free period were obtained for each county; and these values were assigned to respective plots within the counties.

V. SOIL-RELATED ITEMS THAT INFLUENCE WOODLAND USE AND MANAGEMENT

Each different kind of soil may be characterized by its potential productivity for a specified crop under a stipulated kind of management. Foresters use site index to assess this soil quality for wood crops. Site index (the average height of dominant and codominant trees at 50 years of age) is a relative or qualitative indication of productivity. Site index has been correlated with average volume yields of well-stocked, unmanaged stands and can, therefore, be converted into quantitative predictions of potential growth and yield by reference to published yield tables (USDA, 1929; Slocum and Miller, 1953). Such quantitative soil productivity information provides a basis for judging the economic feasibility of woodland conservation measures. Figures 5 through 8 relate average site index to average annual per acre potential growth and diameters in stands 50 years old. This kind of information is not available for white pine in Georgia.

Location samples for determining site index do not cover all species or soil types and mapping units used within the state. In many instances, it was possible to estimate missing site index information from measurements made on soils of similar characteristics. Such estimations were based on field sampling, judgment and experience, and upon published research. Average site index for all soils in the three resource areas where information was either available or supplied is presented in Appendix A, Tables 1, 2, and 3. The estimated values have been clearly indicated.

Correlations between average site index and such recorded items as erosion class, slope percentage, slope position, total and growing-season precipitation, and length of the frost-free period were not attempted. This is planned when like information from the same natural areas in adjacent states can be included.

In addition to potential productivity, soils influence many other items of woodland use and management, for instance; regeneration potential (seedling mortality) - the ease with which seedlings can become established and develop when the original stand is harvested or otherwise removed; plant competition or the brush encroachment hazards that may limit or inhibit the growth of desired tree species following harvest, and loss by fire or windthrow; trafficability or equipment limitations during wood crop tending and tree harvesting; erosion hazard, problems of controlling soil erosion during certain phases of wood crop rotation, or in connection with certain operations such as site preparation, planting, construction and maintenance of fire lanes, skid trails, harvesting, and hazards of financial loss to a wood crop due to windthrow.

A system of rating soils used for growing wood crops has been developed. This system uses the soil-related items important to woodland conservation. Criteria used for rating soils in this way are summarized in Appendix B.

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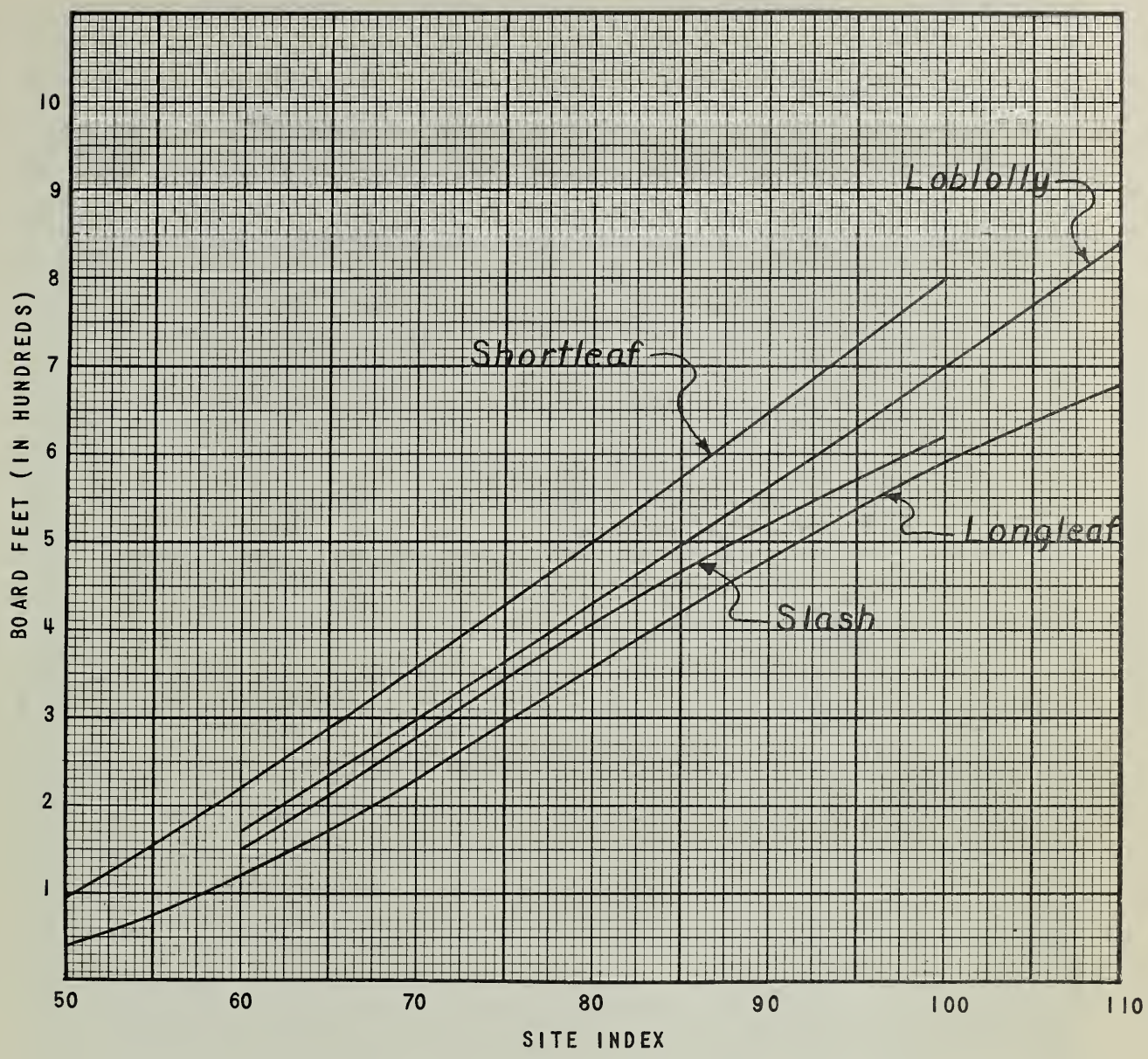

Figure 5

Average annual per acre growth (board feet Scribner, all stems 8 inches in diameter and over) at 50 years of age for well-stocked, unmanaged stands of Southern pines. (Adapted from U.S.D.A., Misc. Publ. 50).

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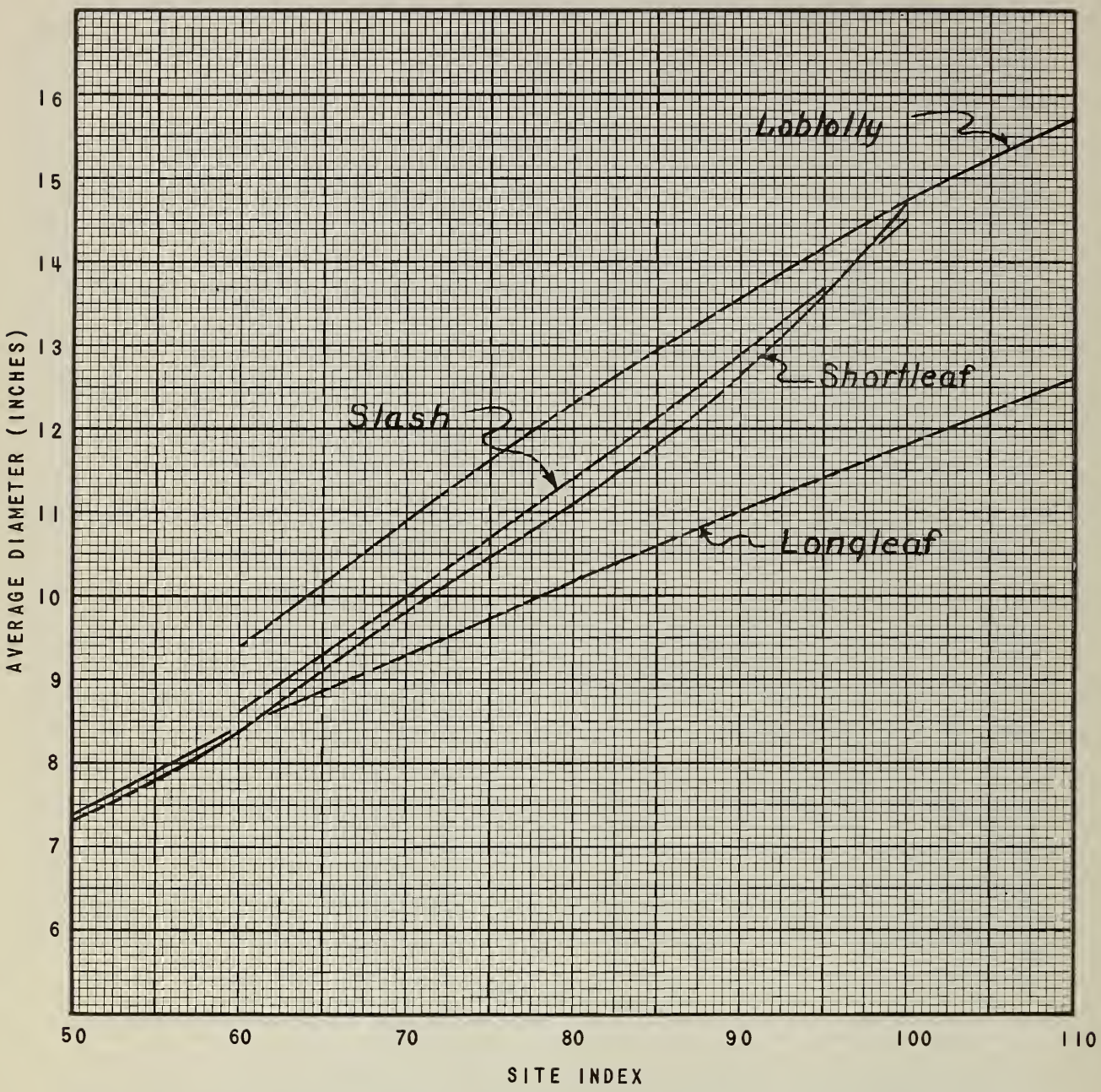

Figure 6

Average breast height diameter of the dominant stand at 50 years of age. Well-stocked, unmanaged stands of Southern pines. (Adapted from U.S.D.A., Misc. Publ. 50).

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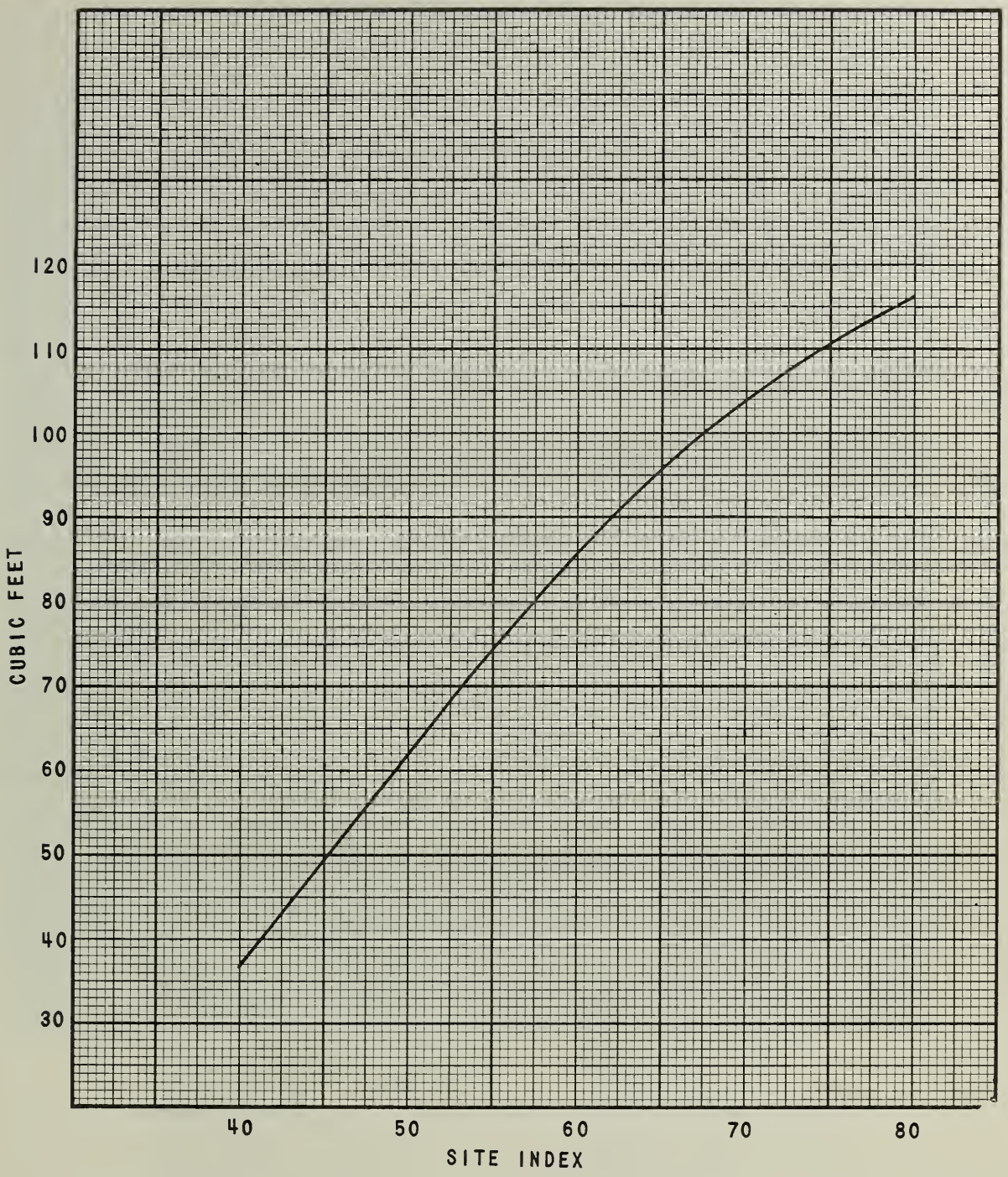

Figure 7

Average annual per acre cubic feet growth of well-stocked, unmanaged stands of Virginia pine at age 50. (Interpreted from Slocum and Miller, 1953)

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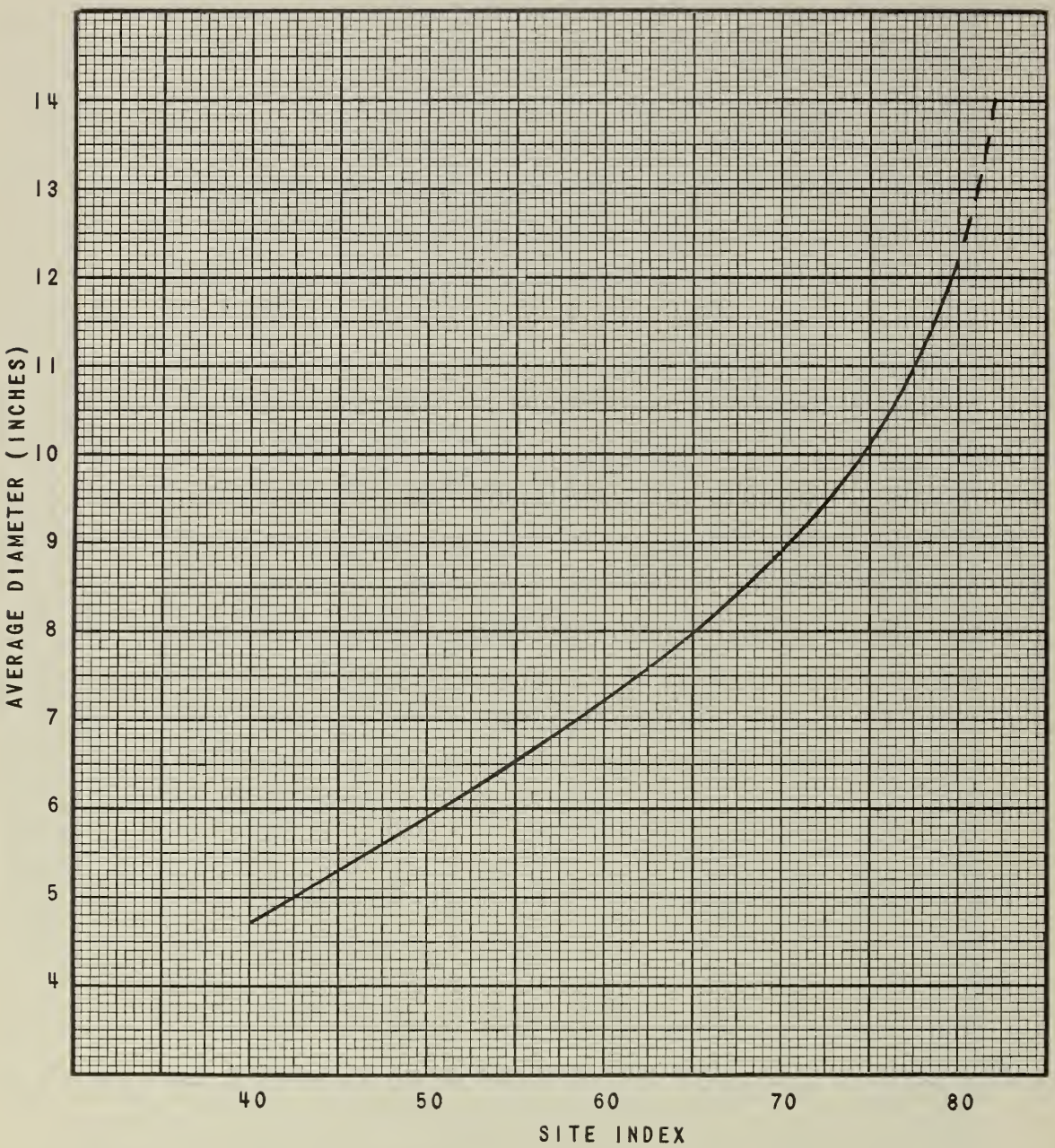

Figure 8

Average breast height diameter (stems 1 inch d.b.h. and larger) of well-stocked, unmanaged stands of Virginia Pine at age 50. (Interpreted from Slocum and Miller, 1953)

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VI. WOODLAND SUITABILITY GROUPINGS OF SOILS INTERPRETATIONS FOR WOODLAND CONSERVATION

Soil mapping units in each of the three resource areas were arranged into Woodland Suitability Groups in order to summarize information. The groupings were based upon soil characteristics, physical conditions, and the ratings that were made of such things as potential soil productivity (site index), degree of plant competition, equipment limitations, seedling mortality, and erosion and windthrow hazards. It may be stated, therefore, that each group contains soils that produce similar kinds of wood crops, or other related values, with similar management practices, requires similar kinds of conservation treatments, and has comparable potential productivity. Although certain hardwood cover types occur and thrive on these soils, this progress report gives interpretations only for the major pine species. Ratings were based on field examinations, measurements, experience and judgment, guided by research when this was available. Local personnel most familiar with the soils and forests made the ratings and the Woodland Suitability Groupings. It should be recognized that these ratings and interpretations are the best information presently available. As more information and experience are gained, there are sure to be some improvements.

Woodland Suitability Groups for the three resource areas are shown in Tables 1, 2, and 3. These groupings are also discussed in the following sections.

VII. WOODLAND SUITABILITY GROUPING OF SOILS LIMESTONE VALLEY & MOUNTAIN RESOURCE AREA

All soils mapping units for the Limestone Valley and Mountain Resource Area have been assembled into ten major groups as shown in Table 1. Generalized ratings for all the soils in each group are shown. All mapping units included in each Woodland Suitability Group do not necessarily have site index data available for each species of pine. The natural range of species is not on some mapping units. However, it is expected that the group reflects the site index potential if the mapping unit is planted to the species of pine and given proper management.

Woodland Suitability Group 1

These are deep, well drained fine sandy loams, loams and silt loams with sandy clay to clay loam subsoils. They are moderately permeable soils and normally have slight to moderate erosion. These soils are found on uplands, terraces and toe slopes. Mapping units of the following soils are in this group:

Allen fine sandy loam
Braddock fine sandy loam
Christian fine sandy loam
Cumberland loam
Decatur silt loam
Dewey silt loam
Emory silt loam
Etowah loam
Fannin fine sandy loam
Fannin loam
Fannin-Talladega loam
Farragut silt loam
Folsom silt loam
Fullerton silt loam
Fullerton cherty silt loam
Habersham fine sandy loam
Halewood fine sandy loam
Halewood loam
Hartsells fine sandy loam
Hayesville fine sandy loam
Hermitage silt loam
Hiwassee sandy loam
Hiwassee fine sandy loam
Hiwassee loam
Holston fine sandy loam
Holston silt loam
Jefferson fine sandy loam
Linker fine sandy loam
Muse silt loam
Nolichucky fine sandy loam
Pace silt loam
Porters loam
Rabun loam
Rydal silt loam
Sequatchie fine sandy loam
Talbott silt loam
Tate silt loam
Tellico fine sandy loam
Thurmont fine sandy loam
Tusquitee loam
Watauga loam
Waynesboro silt loam

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Table 1. Woodland Suitability Grouping of Soils for the Limestone Valley and Mountain Resource Area of Georgia

Soil Groups and Descriptions	Erosion Class[1]	Slope Percent[1]	Average Site Index - Feet				Degree of Plant Competition	Equipment Limitations	Seedling Mortality	Erosion Hazards	Windthrow Hazards
			Loblolly	Shortleaf	Virginia	White					
1 Deep, well drained, moderately coarse and medium textured upland soils	1 & 2	0-15 15-60 60+	79	67	77	96	Moderate Moderate Moderate	Slight Moderate Severe	Slight Slight Moderate	Slight Moderate Severe	Slight Slight Slight
2 Deep, well drained moderately fine textured upland soils	3 & 4	0-15 15-60 60+	80	81	81	100	Slight Slight Slight	Slight Moderate Severe	Moderate Moderate Moderate	Severe Severe Severe	Moderate Severe Severe
3 Moderately deep, well drained to moderately well drained, moderately coarse and medium textured upland soils	1 & 2	0-15 15-60 60+	81	66	78	-[2]	Moderate Moderate Moderate	Moderate Severe Severe	Moderate Moderate Moderate	Moderate Moderate Severe	Slight Slight Moderate
4 Moderately deep, well drained to moderately well drained, moderately fine textured upland soils	3 & 4	0-15 15-60	64	60	67	-	Slight Slight	Moderate Severe	Moderate Moderate	Severe Severe	Moderate Severe
5 Moderately deep to shallow well drained stony upland soils	1 & 2	0-15 15-60 60+	76	66	77	90	Moderate Moderate Severe	Moderate Severe Severe	Slight Moderate Moderate	Moderate Severe Severe	Moderate Moderate Severe
6 Deep, well drained terrace and bottomland soils	1 & 2	0-15	-	-	-	-	Severe	Slight	Slight	Slight	Slight
7 Moderately deep, moderately well drained bottomland soils	1 & 2	0-15	76	64	85	-	Severe	Moderate	Slight	Slight	Slight
8 Deep, poorly drained bottomland soils	1 & 2	0-15	-	-	-	-	Severe	Severe	Moderate	Slight	Slight
9 Moderately deep to shallow well drained upland soils	1 & 2	0-15 15-60	77	76	-	-	Moderate Moderate	Moderate Moderate	Moderate Moderate	Moderate Severe	Moderate Moderate
10 Shallow, well drained upland soils with little or no B horizon	1 & 2	0-15 15-60	68	56	70	-	Moderate Moderate	Moderate Severe	Moderate Severe	Severe Severe	Moderate Severe

[1] See Appendix C for definitions of slope and erosion classes.

[2] A dash means that no information is available.

The average site index for loblolly pine is 79, for shortleaf pine 67, and for Virginia pine 77. Average annual per acre growth in well-stocked, unmanaged stands 50 years old is about 415 board feet, Scribner, for loblolly, and about 310 board feet for shortleaf. Equivalent growth rates for Virginia pine is about 114 cubic feet.*

Plant competition is moderate. Plant competition develops on these soils but will not ordinarily prevent adequate stand establishment if seed trees are available.

The equipment limitations increase with the steepness of the slope, being slight on gentle slopes and severe on very steep slopes.

Seedling mortality is slight to moderate. Normally, restocking by initial plantings is satisfactory. Natural regeneration can be expected provided that seed trees are available and seedbed conditions are favorable.

The erosion hazard is slight on gently sloping land, but becomes severe on the strongly sloping and steep slopes.

The windthrow hazard is slight, but increases with steepness of slope due to shallowness of soil.

Woodland Suitability Group 2

These are deep, well drained sandy clays, sandy clay loams, clay loams, and silty clay loams with sandy clay to clay loam subsoils. They are moderately permeable soils and are severely or very severely eroded. They are found on uplands, terraces and toe slopes. Mapping units of the following soils are in this group:

Allen fine sandy clay loam
Braddock fine sandy clay loam
Christian fine sandy clay loam
Cumberland silty clay loam
Decatur silty clay loam
Dewey silty clay loam
Fannin fine sandy clay loam
Fannin clay loam
Farragut silty clay loam
Folsom silty clay loam
Fullerton silty clay loam
Fullerton cherty silty clay loam
Habersham fine sandy clay loam
Hayesville fine sandy clay loam
Hiwassee fine sandy clay loam
Hiwassee sandy clay loam
Hiwassee clay loam
Rabun clay loam
Talbott silty clay loam
Tate silty clay loam
Tellico fine sandy clay loam
Tellico clay loam
Waynesboro fine sandy clay loam

The average site index for loblolly is 80, for Virginia and shortleaf pine 81, and for white pine 100. Average annual per acre growth in well-stocked, unmanaged stands at 50 years of age is: 430 board feet, Scribner, for loblolly pine; 520 board feet for shortleaf; and 117 cubic feet for Virginia pine.

The degree of plant competition is slight. Pine establishment may be expected if adequate seed trees are available.

Seedling mortality is moderate due to the severity of the erosion. Some frost heaving may be expected.

The erosion hazard of this group is severe.

The equipment limitations are slight to severe depending upon slope steepness. Windthrow hazards are moderate on the gently sloping areas and severe on the strongly sloping to steep slopes.

Woodland Suitability Group 3

These are moderately deep, well drained to moderately well drained sandy loams, loams, silt loams, and cherty silt loams, with sandy clay to clay loam subsoils. They have a moderate to moderately slow permeability and slight to moderate erosion. These are primarily residual upland soils. The Monongahela series is an inclusion in this group.

*Since Virginia pine is primarily used for pulpwood, it is shown in cubic rather than board feet in this publication.

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Mapping units of the following soils are in this group:

Apison fine sandy loam
Apison gravelly fine sandy loam
Apison shaly fine sandy loam
Apison-Lehew gravelly fine sandy loam
Armuchee silt loam
Balfour loam
Chandler loam
Clarksville fine sandy loam
Clarksville silt loam
Clarksville cherty silt loam
Clifton loam
Enders loam
Habersham gravelly soil
Hartsells fine sandy loam, shallow
Hayesville fine sandy loam, thin solum
Lehew gravelly fine sandy loam
Monongahela fine sandy loam
Monongahela gravelly silt loam
Sequoia silt loam
Winterboro silt loam

The average site index for loblolly pine is 81, for shortleaf pine 66, and for Virginia pine 78. On these soils well-stocked, unmanaged stands 50 years of age can be expected to show an average annual per acre growth of about 440 board feet, Scribner, in loblolly pine; about 300 board feet in shortleaf; and about 114 cubic feet in Virginia pine.

The degree of plant competition is moderate. The development of a normal, fully stocked stand may be delayed because competition from other plants may prevent rapid establishment and growth of pine seedlings.

Equipment limitations are moderate on level to gently sloping areas and severe on steeper slopes.

Mortality of both planted and natural seedlings during the first few years, when plant competition is controlled, is rated as moderate. Seedbed preparation on slopes up to about 40 percent may be advisable to assure a higher probability of adequate and immediate restocking by initial planting. Natural regeneration of loblolly, shortleaf, or Virginia pine can be expected on prepared sites, provided that adequate seed trees are available.

Erosion hazards are rated moderate on slopes with most of the topsoil remaining but severe on slopes above 60 percent.

Windthrow hazards are rated slight on the gentle slopes, but become moderate on slopes above 60 percent.

Woodland Suitability Group 4

These are moderately deep, well drained to moderately well drained sandy clay loams, shaly silt loams and silty clay loams with clay loams to clayey subsoils. They have a moderate to moderately slow permeability and severe to very severe erosion. These are all upland soils. Mapping units of the following soils are included:

Apison sandy clay loam
Armuchee shaly silt loam
Calvin shaly silt loam
Clarksville cherty silty clay loam
Dandridge shaly silt loam
Hayesville fine sandy clay loam, thin solum
Lehew gravelly fine sandy clay loam
Sequoia silty clay loam

The average site index for loblolly pine is 64, for shortleaf 60, and for Virginia pine 67. Average annual per acre growth expected from these woodcrops in stands 50 years old on these soils are: loblolly and shortleaf pine about 220 board feet, Scribner, and Virginia pine about 99 cubic feet.

The degree of plant competition that may be expected is slight.

Mortality of planted seedlings during the first few years is rated as moderate. Some frost heaving can be expected on exposed sites.

The erosion hazards are rated severe.

Equipment limitations and windthrow hazards are moderate on gentle slopes and severe on strongly sloping sites.

Woodland Suitability Group 5

WR61-476-20X86

These are moderately deep to shallow, well drained stony fine sandy loam, stony loam, stony silt loam and stony clay loam soils with sandy clay to clay loam subsoils. They are moderately permeable and have slight to moderate erosion. These are primarily upland soils. The Hiwassee-Hayesville stony loam is an inclusion in this group. Mapping units of the following soils are in this group:

Balfour stony loam
Clarksville stony silt loam
Clifton stony loam
Habersham stony fine sandy loam
Hayesville stony fine sandy loam
Hiwassee-Hayesville stony loam
Jefferson-Allen stony fine sandy loam
Muskingum stony fine sandy loam
Porters stony loam
Porters-Ashe stony loam
Porters-Balfour stony loam
Porters-Balfour stony clay loam
Porters-Hayesville stony loam
Porters-Ranger stony loam
Rabun stony loam
Ramsey-Ranger stony loam
Talladega stony loam
Talladega-Ranger stony loam
Tusquitee stony loam

The average site index on these soils is: loblolly pine 76, shortleaf pine 66, Virginia pine 77, and white pine 90. Well-stocked, unmanaged stands 50 years of age may be expected to grow per acre annually about 375 board feet, Scribner, of loblolly; about 300 board feet for shortleaf; and about 113 cubic feet of Virginia.

The degree of plant competition is moderate to severe. Hardwoods are the climax species for these soils. Mixed hardwoods and brush tend to prevent the establishment of pines.

Mortality of naturally-occurring seedlings during the first few years is considered slight to moderate. Virginia pine on the more open sites and white pine in mixtures of hardwoods are more apt to survive than loblolly or shortleaf pine. Machine planting is difficult because of stones or rock outcrops and the steepness of the slope.

Equipment limitations are rated moderate on slopes of less than 15 percent and severe on slopes greater than 15 percent. Erosion hazards are rated moderate on slopes of less than 15 percent and severe on steeper slopes. Because of these limitations, some special techniques of construction and maintenance of skid trails, landings, and roads need to be considered in woodland planning.

Windthrow hazards are rated moderate on slopes less than 60 percent and severe on steeper slopes.

Woodland Suitability Group 6

These are deep to moderately deep, well drained sandy loams and silt loams with sandy clay loam to clay loam subsoils. They have a moderate permeability and only slight erosion. These are alluvial soils found on first bottoms, terraces, and toe slopes. Mapping units of the following soils are included:

Egam silt loam
Huntington silt loam
Pope fine sandy loam
State fine sandy loam
State silt loam
Transylvania fine sandy loam
Transylvania silt loam

The native vegetation was mixed hardwoods. Much of the soil was cleared for cultivation and pasture. Pine stands were not found for adequate measurement of site index and it is likely that this group of soils will not be important in growing pine. However, the site index should be as good or better than that obtained for soils of Group 2.

The degree of plant competition is rated severe since mixed hardwoods and brush tend to exclude pines from these soils.

Seedling mortality is rated slight. The only special problem that will adversely affect seedling establishment and growth is plant competition.

There are no special equipment limitations on these soils because of their textural characteristics or their drainage and permeability.

Seedling mortality, erosion hazards and windthrow hazards are all considered to be slight and present no special problems.

MR61-476-21X86

Woodland Suitability Group 7

These are moderately deep, moderately well drained to somewhat poorly drained fine sandy loams, and silt loams with clay loam to silty clay loam subsoil. They have moderate to moderately slow permeability and have slight to moderate erosion. These are alluvial soils and extend from first bottoms to high terraces and toe slopes. Mapping units of the following soils are in this group:

Capshaw silt loam
Cotaco fine sandy loam
Greendale silt loam
Leadvale silt loam
Lindside silt loam
Lindside silt loam, local alluvial phase
Newark silt loam
Philo silt loam
Pinson silt loam
Roane silt loam
Taft silt loam
Tyler silt loam
Tyler gravelly very fine sandy loam
Whitwell silt loam
Wolftever silt loam

The average site index for loblolly pine is 76, for shortleaf pine 64, and for Virginia pine 85. Well-stocked, unmanaged stands 50 years old on soils in this group may be expected to grow about 375 and 270 board feet, Scribner, annually for loblolly and shortleaf, respectively. Similar stands of Virginia pine may produce at an average annual rate of about 121 cubic feet.

Plant competition is rated severe. The native vegetation was mixed hardwoods with scattered pines. Hardwoods and brush will tend to be the major species on these soils.

Seedling mortality, as a result of soil influences, is rated slight on open sites, but can be expected to become heavier when in competition with hardwoods and brush.

Equipment limitations are rated moderate. This is principally due to the factor of soil wetness which may restrict equipment use for periods of several weeks.

Soil erosion and windthrow do not present any special problems on this group of soils.

Woodland Suitability Group 8

These are deep to moderately deep, poorly drained to very poorly drained loams, silt loams and silty clay loams with clay loam and plastic clay subsoils. They have slow to very slow permeability and slight erosion. These soils are found in bottoms, depressions, and on low terraces. Mapping units of the following soils are in this group:

Alluvial*
Atkins silt loam
Dunning silty clay loam
Guthrie silt loam
Melvin silt loam
Purdy silt loam
Robertsville silt loam
Spilo silty clay loam
Toxaway silt loam
Toxaway silt loam, organic phase
Warne-Worsham loam

Pine does not occur ordinarily on these soils and no stands were found for adequate measurements of site index.

The natural vegetation of these soils is mixed hardwoods and the degree of plant competition is rated as severe. Mixed hardwoods and brush tend to take over on these soils.

Seedling mortality is rated moderate for loblolly and shortleaf pine. Survival of natural and planted seedlings cannot always be relied upon, and some special treatment measures may be advisable to assure adequate and immediate restocking of pine, if pine is desirable.

Equipment limitations are rated severe. The limitations are due principally to the factor of soil wetness. Damage to soil structure and stability and to tree roots may occur if equipment is used during wet periods.

There are no special problems of soil erosion or windthrow on this group of soils.

*Tentative name

MR61-476-22X86

Woodland Suitability Group 9

These are moderately deep to shallow, moderately well drained to somewhat poorly drained silt loam soils with fine textured plastic clayey subsoils. They have a moderately slow to slow permeability and have from slight to moderate erosion. These are toe slope and upland soils. Mapping units of the following soils are in this group:

Colbert silt loam
Colbert silt loam, concretionary phase
Colbert silty clay
Conasauga silt loam
Conasauga shaly silt loam

The average site index for loblolly pine is 77 and for shortleaf pine 76. Well-stocked, unmanaged stands at 50 years may be expected to show an average annual per acre growth of about 390 and 440 board feet, Scribner, respectively.

Equipment limitations and degree of plant competition are rated moderate. Hardwoods and brush tend to occupy the site and exclude the pine. Cleared areas revert to loblolly and Virginia pine provided that seed trees are present. Red cedar occurs frequently in both hardwood and pine stands.

Mortality of seedlings, both planted and natural, during the first few years is rated moderate.

Erosion hazards are considered moderate on gently sloping sites and severe on slopes above about 15 percent.

Windthrow hazards are moderate because of the shallow surface soil and the plasticity of the subsoil.

Woodland Suitability Group 10

These are shallow, well-drained loams, silt loams, silty clays, and clay loams with little or no subsoil or B horizon. They have moderately rapid permeability and have moderate to severe erosion. These are upland soils. Mapping units of the following soils are in this group:

Colbert silt loam, shallow
Colbert-Conasauga silty clay
Folsom shaly silt loam
Montevallo silt loam
Montevallo shaly silt loam
Steekee fine sandy loam
Talladega fine sandy loam
Talladega fine sandy clay loam
Upshur silt loam
Upshur shaly silt loam
Upshur silty clay loam

The average site index for loblolly pine is 68, for shortleaf pine 56, and Virginia pine 70. Average annual per acre growth in stands 50 years of age is about 270 board feet, Scribner, for loblolly; about 165 board feet for shortleaf, and about 104 cubic feet for Virginia pine.

Plant competition is rated moderate. In some instances there is a tendency for brush and hardwoods to take over on the soils.

Mortality of seedlings, both planted and natural, is moderate on soils with slopes under 15 percent and severe where slopes exceed about 15 percent. Some special seedbed preparation is necessary to assure adequate and immediate restocking of these soils.

Erosion hazards are severe primarily due to the shallow nature of the soil.

Equipment limitations and windthrow hazards are moderate on gentle slopes, but become severe on slopes about 15 percent or above.

VIII. WOODLAND SUITABILITY GROUPING OF SOILS PIEDMONT RESOURCE AREA

All soil units of the Piedmont Resource Area have been separated into nine groups as shown in Table 2. All mapping units included in each woodland suitability group do not necessarily have site index data available for each species of pine. The natural range of species is not found on some mapping units. However, it is expected that the group

MR61-476-23X86

Table 2. Woodland Suitability Grouping of Soils for the Piedmont Resource Area of Georgia

Soil Groups and Descriptions [1]	Erosion Class [2]	Average Site Index - Feet		Degree of Plant Competition	Equipment Limitations	Seedling Mortality	Erosion Hazards	Windthrow Hazards	Drought Hazards
		Loblolly	Shortleaf						
11 Deep, highly productive, well drained bottomlands soils	1	102	86	Severe	Moderate	Slight	Slight	Slight	Slight
12 Deep, productive, well drained, moderately permeable upland and terrace soils with slight to moderate erosion	1 & 2	82	71	Moderate to Severe	Slight	Slight	Slight	Slight	Slight
13 Deep, moderately productive, well drained upland and terrace soils	1, 2, & 3	75	68	Slight	Slight	Moderate	Moderate to Slight	Slight	Slight to Moderate
14 Deep, well drained, moderately permeable clay loams and sandy clay loams, severely eroded	3 & 4	74	66	Slight	Moderate to Severe	Moderate	Moderate to Severe	Slight	Moderate
15 Thick or coarse textured surface soils, excessively drained and with moderate to slow permeability	1 & 2	78	69	Slight	Slight	Moderate	Slight	Slight	Moderate
16 Imperfectly drained upland soils that are shallow to a mottled layer and with compact subsoils	1, 2, & 3	72	63	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
17 Upland soils with heavy plastic subsoils of slow permeability	1, 2, & 3	68	60	Severe	Moderate	Severe	Slight	Severe	Moderate
18 Shallow to moderately shallow, low producing upland soils	1 & 2	63	55	Slight	Severe	Severe	Moderate	Moderate	Severe
19 Imperfectly to poorly drained terrace and bottomland soils	1	88	79	Severe	Severe	Moderate	Slight	Slight to Moderate	Slight

[1] Including all slope phases.

[2] See Appendix C for definition of erosion classes.

WRRI-476-24x06

reflects the site index potential if the mapping unit is planted to the species of pine and given proper management.

A narrative discussion of each group is given below.

Woodland Suitability Group 11

These are deep, highly productive, well drained, first bottom soils, and soils collected in depressions. They involve little or no soil-related management problems except the competition of undesirable plants. Mapping units of the following six soils are in this group:

Alluvial land, moderately well drained*
Congaree sandy loam
Congaree fine sandy loam
Seneca sandy loam
Seneca and Starr fine sandy loam
Starr loam

On this group of soils the average site index for loblolly pine is 102 and for shortleaf pine is 86. Well-stocked, unmanaged stands at 50 years of age may be expected to grow per acre annually about 730 and 590 board feet, Scribner, for these two woodcrops, respectively.

The degree of competition from underbrush and other undesirable plants is usually severe after removal of the overstory. Special management and site preparation treatments such as clearing, harrowing, furrowing, burning, poisoning, or planting, are usually necessary to assure well-stocked stands.

There are no special problems of seedling mortality. Usually a good survival of seedlings can be expected following a planting or natural reseeding.

The depth of soil causes no hazards in erosion in this group of soils.

No windthrow hazards are recognized. Individual trees can be expected to remain standing when released on all sides.

There is a moderate degree of equipment limitation due to short periods of excessive wetness during the winter season.

No problems are encountered as a result of drought, as normal moisture conditions exist usually during the entire growing season.

Woodland Suitability Group 12

Members of this group are the more productive deep and well drained upland and terrace soils. They are moderately permeable, with slight to moderate erosion, and are limited to slopes of less than 10 percent. There are very few woodland management problems related specifically to soil characteristics in this group. Mapping units of the following twenty-three soils are included in this group:

Appling sandy loam
Cecil sandy loam
Cecil fine sandy loam
Cecil gravelly fine sandy loam
Cecil coarse sandy loam
Cecil gravelly sandy loam
Georgeville fine sandy loam
Georgeville very fine sandy loam
Grover fine sandy loam
Grover sandy loam
Herndon fine sandy loam
Herndon very fine sandy loam
Lloyd sandy loam
Lloyd fine sandy loam
Lloyd loam
Lockhart sandy loam
Madison sandy loam
Madison gravelly fine sandy loam
Madison fine sandy loam
Masada fine sandy loam
Masada gravelly sandy loam
Davidson loam
Tirzah loam

The average site index for loblolly pine is 82 and for shortleaf pine 71. Well-stocked, unmanaged stands at 50 years of age may be expected to grow per acre annually about 455 and 370 board feet, Scribner, for these two woodcrops, respectively.

*Tentative name

MR61-476-25X86

There is a moderate problem in plant competition on the gentle slopes with a severe problem on many of the steeper slopes. The removal or treatment of this competition is not always necessary, but usually better growing conditions can be obtained with some control.

A good survival of seedlings can be expected following either planting or natural reseeding.

Because of soil depth, permeability, and gentle slopes, erosion hazard is considered to be slight on these soils although it is recognized that a good ground cover should be maintained.

Windthrow hazards are considered slight.

Logging can be done at all times during the year and, according to the rating criteria used, there is no apparent limitation on use of equipment.

Normal moisture conditions exist regardless of drought periods. There are no special drought hazards involved with this group of soils.

Woodland Suitability Group 13

This group contains the moderately productive upland and terrace soils that are deep and moderately well drained. They usually occupy very gentle to gentle slopes. Mapping units of the following eleven soils are in this group:

Alamance fine sandy loam
Alamance sandy loam, thin solum
Altavista fine sandy loam
Altavista loam
Durham fine sandy loam
Durham sandy loam, thin solum
Musella clay loam
Musella stony clay loam
Nason fine sandy loam
Tatum fine sandy loam
Wickham fine sandy loam

The average site index for loblolly pine is 75 and for shortleaf pine 68. Expected growth per acre annually from 50-year-old stands is about 360 and 330 board feet, Scribner, for these two woodcrops respectively.

The degree of plant competition from brush and other plants following removal of overstory is regarded as slight. Invasion by undesirable species is not expected to impede significantly natural regeneration and growth of desired species.

Equipment limitations are considered slight and all commonly used types of equipment can be used under all conditions during the year.

Expected seedling mortality from planting is considered moderate for this group. Ordinarily, losses of between 25 and 50 percent of planted stock may be expected and some interplanting may be required. Natural regeneration cannot always be relied upon and special treatment measures may be advisable to assure adequate and immediate restocking by this means.

The erosion hazard for this group of soils is moderate to slight, and is related to past erosion and slope. Appropriate condideration of this hazard needs to be considered in management.

There are no special problems involving windthrow on these soils and trees can be expected to stand under normal wind conditions after being thinned.

Death from drought will normally be from slight to moderate in these soils after an extended drought.

Woodland Suitability Group 14

This group includes mapping units of fifteen clay loam and sandy clay loam soils on slopes of less than 10 percent. They are severely and very severely eroded, due to past agricultural use, deep, well drained, and moderately permeable. Mapping units of the following soils are in this group:

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Appling sandy clay loam
Cecil sandy clay loam
Cecil gravelly sandy clay loam
Davidson clay loam
Georgeville fine sandy clay loam
Georgeville sandy clay loam
Lloyd clay loam
Lockhart sandy clay loam
Madison gravelly fine sandy clay loam
Madison sandy clay loam
Madison gravelly sandy clay loam
Madison fine sandy clay loam
Nason fine sandy clay loam
Tirzah clay loam
Wickham clay loam

The average site index for loblolly pine is 74 and for shortleaf pine 66. Expected growth per acre annually from 50-year-old well-stocked, unmanaged stands of these two woodcrops is, respectively, about 350 and 300 board feet, Scribner.

The degree of plant competition from brush and other undesirable plants following removal of the overstory is regarded as slight. No special treatment is needed to maintain normal growth.

Equipment limitations are moderate to severe. Erosion has removed the surface soil, exposing the clay-textured B horizon. These soils become slippery for short periods after heavy rains, thus making equipment operation difficult - use may cause injury to tree roots and deterioration of soil structure and stability.

There is a moderate problem in seedling mortality. This is a result of soil characteristics brought about from past erosion. Losses from planting can usually be expected to run from 25 to 50 percent and some replanting may be needed to fill in openings.

The erosion hazards on more gentle slopes are moderate, but become severe on steeper slopes.

Windthrow hazards are considered only slight.

Mortality following excessive drought conditions will be rated as moderate.

Woodland Suitability Group 15

The soils in this group have thick, generally coarse textured surfaces, are excessively drained, with moderate to slow permeability, except the Molena and Louisburg series, which have rapid permeability. These soils have few hazards or problems in woodcrop production. Mapping units of the following fifteen soils are in this group:

Appling loamy coarse sand, thick solum
Appling loamy coarse sand
Cecil loamy coarse sand
Cecil-Lockhart loamy coarse sand
Cecil coarse sandy loam
Durham sandy loam, thick solum
Edgemont fine sandy loam
Enon loamy sand, thick solum
Helena loamy coarse sand
Louisburg loamy sand and sandy loam
Louisburg sandy loam
Molena loamy fine sand
Molena loamy sand
Molena loamy sand, gravelly surface
Vance loamy coarse sand

Average site index for loblolly pine is 78 and for shortleaf pine 69 on soils of this group. Well-stocked, unmanaged stands of these two woodcrops at 50 years of age may be expected to grow per acre annually about 400 and 340 board feet, Scribner, respectively.

As a result of the lack of moisture in the topsoil, there is a very slight problem of plant competition in this group of soils.

There is a moderate hazard in seedling mortality due to depth of sandy topsoil that may not provide adequate moisture to sustain growth during periods of drought. Usually 25 to 50 percent loss can be expected unless rainfall is plentiful during the planting season and throughout the first growing season.

The hazards of erosion, windthrow, and equipment limitations are all considered slight in these soils.

MR61-476-27X86

Drought hazards are moderate, since some mortality may be expected following long drought conditions.

Woodland Suitability Group 16

There are mapping units of nine imperfectly drained upland soils in this group. They are shallow to a mottled layer and have compact subsoils. The soils included are:

Cataula fine sandy loam
Cataula clay loam
Colfax sandy loam
Colfax coarse sandy loam
Helena sandy loam
Mecklenburg sandy clay loam
Vance sandy loam
Vance fine sandy loam
Vance sandy clay loam

The average site index for loblolly pine is 72 and for shortleaf pine 63. Expected growth per acre annually from 50-year-old, well-stocked, unmanaged stands of these two woodcrops, respectively, are about 320 and 255 board feet, Scribner.

The degree of plant competition in these soils is moderate. This is a result of imperfect drainage, which promotes invasion of many undesired species. This condition usually will not prevent adequate natural regeneration, but adequate restocking may be delayed and growth retarded unless some control measures are employed.

There is a moderate problem of seedling mortality on this group of soils because of shallowness and compact subsoils that impede root development and early establishment. From 25 to 50 percent mortality may normally be expected and replanting may need to be done to fill in openings. Natural regeneration cannot always be relied upon.

Management problems in erosion, windthrow, equipment limitations, and drought hazards are all given a moderate rating. This is primarily a result of imperfect drainage and plastic subsoils.

Woodland Suitability Group 17

Mapping units of the following soils are in this group. All have heavy, plastic subsoils and are slowly permeable:

Bremo gravelly loam
Efland loam
Elbert sandy loam
Enon sandy loam
Goldston sandy clay loam
Helena sandy clay loam
Iredell clay loam
Iredell gravelly fine sandy loam
Iredell fine sandy loam
Iredell loam
Mecklenburg fine sandy loam
Mecklenburg sandy loam
Orange sandy loam
Worsham sandy loam

The average site index for loblolly pine is 68 and for shortleaf pine 60. Expected growth per acre annually from 50-year-old, well-stocked, unmanaged stands of these woodcrops, respectively, is about 270 and 220 board feet, Scribner.

Surplus moisture is favorable to invasion and growth of many undesirable plants and the degree of expected plant competition is rated severe. Natural reseeding cannot be relied upon to provide adequate restocking. Special site preparation jobs and control of the competing plants are needed for normal growth.

The influence of fine textured plastic subsoil causes expected mortality to be rated severe. Soils are usually too wet or too dry for seedbed preparation and this is a severe limitation on suitable planting conditions. There are times when over 50 percent of planted seedlings may be lost the first year. Natural regeneration cannot be relied upon to provide adequate restocking to pine.

The problems of erosion are considered slight. Slopes are gentle to gently rolling and there is usually a good cover on the ground.

Windthrow hazards are severe in these soils because of the heavy plastic subsoil that limits root penetration and development, and thus predisposes a stand to lose during periods of high wind.

MR61-476-2&R66

Equipment limitations are rated moderate because of the heavy, plastic subsoil and periods of wetness.

Woodland Suitability Group 18

This group includes shallow to moderately shallow upland soils that are low-producing and have many management limitations and hazards. Mapping units of the following eight soils are in this group:

Edgemont stony sandy loam
Edgemont stony fine sandy loam
Goldston fine sandy loam
Louisa fine sandy loam
Louisa fine sandy clay loam
Wilkes sandy loam
Wilkes stony sandy loam
Wilkes-Helena sandy loam

Average site index for loblolly pine is 63 and for shortleaf pine 55. Well-stocked, unmanaged stands of these pine woodcrops at 50 years of age may be expected to grow per acre annually on these soils about 210 and 150 board feet, Scribner, respectively.

The degree of plant competition for this group of soils is considered slight due to lack of moisture and shallow soil conditions. This means that, usually, a stand of desired trees may be obtained without additional treatment, but that a satisfactory establishment may be delayed and growth retarded.

Equipment limitations are considered severe. This is caused mainly by steep slopes, rocks, and erosion conditions.

Seedling mortality is rated severe. This is related to the shallow and sometimes rocky condition of the soils in this group. In some instances over 50 percent mortality may be expected if drought occurs.

Erosion and windthrow hazards are moderate. This is related to the shallow, rocky, and unusually steep slope conditions. The steep slopes will erode unless they are rocky. Rocky conditions may limit root development.

Drought hazards are severe on these shallow, rocky soils. Considerable mortality may occur among the larger trees following a long drought.

Woodland Suitability Group 19

Mapping units of the following list of soils are in this group of imperfectly to poorly drained terrace and first bottom soils. Excessive moisture is the cause of certain management limitations:

Alluvial Land, imperfectly to somewhat poorly drained*
Augusta sandy loam
Augusta fine sandy loam
Chewacla sandy loam
Chewacla fine sandy loam
Roanoke sandy loam
Roanoke fine sandy loam

The average site index for loblolly pine is 88 and for shortleaf pine 79. Excessive moisture will not permit more than a partial stand of pine on these soils and quantitative growth expectations per acre are not attempted. These soils are usually better adapted to bottomland hardwoods.

Excessive moisture promotes invasion and growth of many undesirable species, thus requiring a plant competition rating of severe. Control of undesirable plant competition is necessary before a desired stand can become established and make normal growth.

Equipment limitations are severe, as there are long periods following heavy or frequent rains when no type of logging equipment can be used on these soils.

Seedling mortality is considered moderate. This is a result of excessive moisture, and sometimes 25 to 50 percent of naturally occurring seedlings may die, thus delaying, and usually preventing, the development of fully stocked stands.

The erosion hazards are slight as these are bottomland soils.

*Tentative name

MR61-476-29X86

Windthrow hazards are slight to moderate. Excessive moisture encourages shallow rooting of some species and loss may result during windy periods.

Drought hazards are slight. There is always sufficient moisture, even during severe drought conditions.

IX. WOODLAND SUITABILITY GROUPING OF SOILS COASTAL PLAIN RESOURCE AREA

Soil mapping units for the Coastal Plain Resource Area have been assembled into eight groups as shown in Table 3. All mapping units included in each woodland suitability group do not necessarily have site index data available for each species of pine. The natural range of species is not on some mapping units. However, it is expected that the group reflects the site index potential if the mapping unit is planted to the species of pine and given proper management.

Woodland Suitability Group 20

These are deep, well drained soils with moderate permeability in the subsoil. Mapping units of the following soils are included:

Amite sandy loam
Bradley loam
Bradley sandy loam
Bradley sandy clay loam
Cahaba loamy fine sand
Cahaba sandy loam
Cahaba loamy sand, thick surface
Carnegie sandy loam
Chattahoochee loamy fine sand
Chesterfield sandy loam
Faceville fine sandy loam
Greenville sandy loam
Greenville clay loam
Kalmia sandy loam
Kalmia sandy loam, thick surface
Magnolia sandy loam
Magnolia fine sandy loam
Marlboro fine sandy loam
Marlboro loamy sand, thick surface
Norfolk sandy loam
Norfolk fine sandy loam
Norfolk loamy sand
Norfolk loamy sand, thick surface
Orangeburg sandy loam
Orangeburg loamy sand, thick surface
Orangeburg sandy clay loam
Red Bay sandy loam
Red Bay loamy sand, thick surface
Ruston sandy loam
Ruston loamy sand, thick surface
Tifton sandy loam
Tifton loamy sand, thick surface
Tifton fine sandy loam
Tifton loamy coarse sand

Average site indexes for this group of soils are: Loblolly pine 83; slash pine 86; longleaf pine 70; and shortleaf pine 72. Expected yields per acre annually from 50-year-old, well-stocked, unmanaged stands of these pine woodcrops on this group of soils are, respectively, about 470, 480, 230, and 385 board feet, Scribner.

The expected degree of plant competition from brush and other plants following the removal of overstory is considered moderate. This is not serious enough to prevent adequate restocking. However, the application of simple management techniques, such as seedbed preparation, may be desirable.

There are no special problems of seedling mortality in plantings on this group of soils.

The equipment limitations vary from slight to moderate, the moderate problem occurring on the steeper sloping phases.

On slopes up to 5 percent there is no special erosion problem. A moderate erosion hazard exists mainly in the form of gully erosion on slopes 5 to 8 percent, and it is considered severe on slopes above 8 percent.

The windthrow hazard is considered to be slight.

The drought hazard is considered to be slight.

MR61-476-30X86

Table 3. Woodland Suitability Grouping of Soils for the Coastal Plain Resource Area of Georgia

Soil Groups and Descriptions[1]		Erosion Class[2]	Average Site Index - Feet				Degree of Plant Competition	Equipment Limitations	Seedling Mortality	Erosion Hazards	Windthrow Hazards	Drought Hazards
			Loblolly	Slash	Longleaf	Shortleaf						
20	Deep, well drained soils with moderate permeability in the subsoil	1 & 2	83	86	70	72	Moderate	Slight to Moderate	Slight	Slight to Severe	Slight	Slight
21	Deep, moderately well drained to somewhat poorly drained soils with moderately slow permeability in the subsoil	1 & 2	90	90	75	70	Moderate	Moderate	Slight	Slight	Slight	Slight
22	Moderately deep soils with fine textured subsoil	2 & 3	86	86	71	71	Moderate	Moderate to Severe	Slight to Moderate	Moderate to Severe	Moderate	Slight
23	Poorly to very poorly drained soils with subsoil texture ranging from sand to clay	1	96	88	87	-[3]	Severe	Severe	Severe	Slight	Slight	Slight
24	Deep, coarse textured soils which are somewhat excessively drained	1 & 2	90	-	70	60	Moderate	Slight to Severe	Moderate to Severe	Slight to Severe	Slight	Moderate
25	Deep to very deep, coarse textured soils that are excessively drained	1	70	75	70	-	Slight	Moderate to Severe	Severe	Slight to Severe	Slight	Severe
26	Poorly developed profile characteristics and heavy sandy clay to clay subsoil	1, 2, & 3	75	60	55	-	Moderate	Moderate to Severe	Moderate to Severe	Moderate	Moderate	Slight
27	Moderately well to poorly drained soils with moderate to rapid permeability	1	80	80	70	-	Moderate to Severe	Moderate	Slight	Slight	Slight	Slight

1 Including all slope phases.

2 See Appendix C for definition of erosion classes.

3 A dash means that no information is available.

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Woodland Suitability Group 21

These are deep, moderately well drained to somewhat poorly drained soils with moderately slow permeability in the subsoil. Mapping units of the following soils are in this group:

Alachua loamy fine sand
Bladen sandy loam
Bladen-Coxville sandy loam
Bladen-Coxville sandy loam, thick surface
Charleston sandy loam
Charleston loamy sand, thick surface
Coxville sandy loam
Dunbar sandy loam
Edisto fine sandy loam
Flint fine sandy loam
Goldsboro sandy loam
Goldsboro loamy sand, thick surface
Irvington sandy loam
Irvington loamy sand, thick surface
Irvington loamy sand
Izagora sandy loam
Izagora loamy sand, thick surface
Izagora fine sandy loam
Izagora fine sandy loam, thick surface
Iuka fine sandy loam
Local alluvial land, moderately well drained*
Lynchburg sandy loam
Lynchburg loamy sand, thick surface
Lynchburg loamy sand
Lynchburg loamy fine sand, thick surface
Wahee fine sandy loam

The average site index for loblolly and slash pines is 90; longleaf pine 75; and shortleaf 70. Listed in the same order, well-stocked, unmanaged 50-year-old stands of these woodcrops on this group of soils may be expected to grow per acre annually at the rates of about 560, 520, 295, and 360 board feet, Scribner.

The degree of plant competition from brush and other plants, following the removal of overstory, is regarded as moderate. Competition develops on these soils, but will not ordinarily prevent adequate stand establishment of the designated species. Establishment may be delayed and initial growth rate slowed.

Equipment limitations are rated moderate. This is due principally to soil wetness that may persist for periods of up to three months' duration. Damage to soil structure and stability, and to the tree roots, may occur if equipment is used during the restrictive period.

Seedling mortality hazard is considered slight.

There are no special problems of soil erosion on this group of soils when the woodlands are managed according to currently acceptable practices.

No special problem of windthrow hazard is recognized.

There are no special problems of drought hazard on these soils due to their wet nature.

Woodland Suitability Group 22

These are moderately deep soils with fine-textured subsoils. Mapping units of the following soils are in this group:

Boswell sandy loam
Boswell sandy clay loam
Carnegie fine sandy loam, thick surface
Debruce sandy loam
Eulonia sandy loam, thick surface
Fairhope sandy loam, thick surface
Fairhope sandy loam
Fairhope sandy loam, thin solum
Gilead loamy sand
Gilead loamy coarse sand, thin solum
Gilead loamy sand, thick surface
Gilead, Lakeland, Vaucluse gravelly sands
Gilead-Chesterfield loamy sand
Greenville sandy clay loam, thin solum
Henderson stony sandy loam
Henderson cherty sandy loam
Sawyer sandy loam
Shubuta fine sandy loam
Shubuta fine sandy clay loam
Tifton sandy loam, thin solum

*Tentative name

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Vaiden-Oktibbeha fine sandy loam
Vaucluse-Gilead sandy loam
Vaucluse-Gilead sandy clay loam
Vaucluse-Bradley sandy loam
Vaucluse loamy coarse sand
Vaucluse sandy loam

The average site index for loblolly and slash pine is 86, and for longleaf and shortleaf pine, 71. Well-stocked, unmanaged stands at 50 years of age may be expected to grow on these soils at the per acre annual rate of about 510, 480, 240, and 370 board feet, Scribner, respectively.

The degree of plant competition from brush and other plants, following the removal of overstory, is considered moderate. Competition develops on these soils, but will not ordinarily prevent adequate stand establishment of the designated species.

The equipment limitations of this group of soils are considered moderate to severe. The severe problem exists on slopes above eight percent.

It exists over a period of less than three months per year. During this period, it is necessary to give some attention to use of equipment to prevent damage to tree roots, soil structure and stability. On the other soils, the problem is severe because of the additional wetness factor. Special attention must be given to equipment use during a period greater than three months per year, to prevent serious damage to tree roots, soil structure and stability.

Mortality of seedlings during the first two years, when plant competition is controlled, is rated slight for loblolly and slash, and moderate for longleaf and shortleaf pine. Ordinarily, natural regeneration of loblolly pine will take place under proper silvicultural conditions. Natural regeneration of shortleaf and longleaf cannot always be relied upon, and special treatment measures may be advisable to assure adequate and immediate restocking where these species are desired. Satisfactory restocking by initial planting would be expected four out of five years for loblolly and slash, three out of five years for longleaf. Some replanting can be expected to fill in openings even during the years of greatest success of longleaf.

The erosion hazards of these soils are considered moderate to severe. Attention should be given to erosion-prevention measures, especially proper location and maintenance of roads on the sloping phases.

Windthrow hazard is considered moderate. Some attention to this hazard needs to be given in controlling stand density when thinning or during release cutting, or in the final or regeneration cut, to prevent loss of trees during periods of high wind intensity.

The drought hazard on this group is considered slight because of general wetness factor.

Woodland Suitability Group 23

These are poorly to very poorly drained soils with subsoil texture ranging from sand to clay. Mapping units of the following soils are in this group:

Alluvial land*
Bladen loam and clay loam
Bayboro loam and clay loam
Chastain fine sandy loam
Grady clay loam
Grady sandy loam
Leaf fine sandy loam
Local alluvial land, imperfectly and poorly drained*
Meggett clay loam and loam
Myatt fine sand
Myatt fine sandy loam
Plummer sands
Portsmouth loam
Rains sandy loam, thick surface
Rains loamy sand, thick surface
Rutledge sands and loamy sand
St. Johns sands
Weston loamy coarse sand
Weston fine sandy loam
Weston fine sandy loam, thick surface

The average site index for loblolly pine is 96, slash pine 88, and longleaf pine 87. However, on waterlogged areas, slash pine site index may be very much lower than the average shown. These average site index values indicate that expected per acre annual rate of growth in well-stocked, unmanaged 50-year-old stands of these species on soils of this group to be about 640, 500, and 440 board feet, Scribner, respectively.

*Tentative name

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The degree of plant competition from brush and other plants, following the removal of overstory, is considered severe. Natural regeneration cannot be relied upon to provide adequate restocking of designated species. Special management and site preparation treatment are necessary, such as land clearing, controlled burning, use of chemical sprays, girdling, tree planting, with replanting as needed, to assure fully-stocked stands.

Equipment limitations are rated severe. This is due to wetness of these soils and overflow hazard. Damage to soil structure and stability and injury to tree roots may result if equipment is used on these soils during the wetter periods of the year. High quality roads are required in order to manage these soils efficiently.

Mortality of seedlings during the first few years, with plant competition controlled, is rated severe. This is due largely to poor drainage and overflow hazard. Natural regeneration cannot, therefore, be relied upon. Satisfactory stocking from initial planting can be expected only about two out of five years. In some cases water control is necessary before stands can be established. Considerable replanting may be necessary to insure adequate and immediate restocking. Special seedbed preparation, superior planting techniques, and use of high quality planting stock may be advisable.

There are no problems of erosion on this group of soils.

Windthrow hazards constitute no problem on this soil group.

The drought hazard is of no consequence on these soils because of their wet nature.

Woodland Suitability Group 24

These are deep, coarse textured soils that are somewhat excessively drained. Mapping units of the following are included:

Americus loamy sand	Huckabee loamy sand
Arredondo loamy fine sand	Independence loamy sand
Eustis loamy sand	Lakeland loamy sand, shallow
Eustis loamy sand, shallow	Lakeland loamy sand
Gainesville loamy fine sand	Tombigbee loamy sand

The average site index for loblolly is 90, longleaf 70, and shortleaf 60. Listed in the same order, well-stocked, unmanaged, 50-year-old stands of these woodcrops on this group of soils may be expected to grow at the average annual per acre rates of about 560, 230, and 220 board feet, Scribner.

The degree of plant competition from brush and other plants following the removal of tree overstory, or when openings are made in the canopy, is rated moderate.

There are no special equipment limitations except on soils where the slope exceeds eight percent. This limitation is considered moderate for soils where slopes vary from 8 to 12 percent and severe where slopes exceed this amount.

The expected seedling mortality from plantings is considered to be moderate to severe. The severe hazard is limited to longleaf pine, no special problems being recognized for the other pine species.

Erosion hazards are considered slight where slope is less than eight percent. On slopes 8 to 12 percent, erosion hazards are rated moderate and on slopes in excess of 12 percent, the hazards are severe.

The windthrow hazards of all soils in the group are considered as slight.

Woodland Suitability Group 25

These are deep to very deep, coarse-textured soils that are excessively drained. Mapping units of the following soils make up this group:

Arredondo sands	Eustis sand	Independence sand
Blanton fine sand, high	Galestown sand	Kershaw sand
Blanton sands, high	Huckabee sand	Lakeland sand

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The average site index for loblolly is 70, for slash 75, and for longleaf 70. Average annual per acre growth expected from well-stocked, unmanaged stands 50 years of age is about 295 board feet, Scribner, for loblolly, about 340 board feet for slash, and about 230 board feet for longleaf.

The degree of plant competition from brush and other plants, following the removal of overstory, is regarded as slight due to the physical characteristics of these soils.

Equipment limitations are considered as moderate on slopes up to eight percent and severe on slopes above this amount. High quality road construction and costly maintenance are usually necessary.

Seedling mortality during the first few years is rated severe. Natural regeneration cannot, therefore, be relied upon. Satisfactory restocking by initial planting, even though plant competition is not important or is completely controlled, can be expected only about one to two years out of five. Planting, including replanting, special seedbed preparation, and superior planting techniques, using high quality planting stock, are necessary to insure adequate and immediate restocking on this group of soils.

There are no special erosion hazards on slopes up to five percent. A moderate gully erosion hazard exists on slopes 5 to 12 percent, and this hazard is considered severe on slopes above 12 percent.

The windthrow hazards of these soils are considered slight.

The drought hazard is rated as severe for this soil group.

Woodland Suitability Group 26

These soils have poorly developed profile characteristics and heavy sandy clay to clay subsoil. This group contains mapping units of the following soils:

Anacoco loamy sand
Cuthbert sandy loam
Cuthbert sandy clay loam
Cuthbert-Susquehanna sandy clay loam
Esto sandy loam
Hoffman loamy sand
Sumter-Houston clays, shallow
Sunsweet sandy loam
Susquehanna sandy loam
Susquehanna sandy clay loam

Site index for loblolly is 75, slash 60, and longleaf 55. Average annual per acre growth expected from 50-year-old stands of these woodcrops on this group of soils are about 360, 150, and 100 board feet, Scribner, respectively.

The degree of plant competition from brush and other plants, following the removal of overstory, is considered moderate. Competition develops on these soils and may retard growth, but will not ordinarily prevent adequate stand establishment of the designated species.

Equipment limitations are moderate except on the steeper slopes, where they are considered severe during long wet periods.

Seedling mortality is moderate to severe. Natural regeneration of pine cannot be relied upon. Planting is needed and some replanting may be required to fill in openings caused by mortality the first year or two.

Erosion and windthrow hazards are considered moderate.

Because of the slow permeability of these soils, the hazard of drought is slight.

Woodland Suitability Group 27

These are moderately well to poorly drained soils with moderate to rapid permeability. Mapping units of the following soils are in this group:

Barth loamy fine sand
Blanton sand, low
Kanapaha fine sand
Klej loamy sand, shallow
Klej loamy sand
Klej sand
Leon fine sand
Leon fine sand, heavy substratum
Ona sand

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The average site index for loblolly pine and slash pine is 80, and longleaf pine 70. However, on the Leon soils longleaf average is 65. Average annual per acre growth expected from 50-year-old, well-stocked, unmanaged stands on these soils, expressed in board feet, Scribner rule, is about: loblolly pine, 430; slash pine, 410; longleaf pine, 230 (except on Leon soils where longleaf is 170 board feet).

The degree of plant competition from brush and other plants following removal of overstory is regarded as moderate to severe. Competition develops on some of these soils, but will not ordinarily prevent adequate stand establishment of the designated species. In open natural stands of longleaf pine, competition is considered severe in some areas of Klej and Leon soils. Site preparation to control this competition may be necessary for adequate stand establishment of longleaf pine.

There are no special problems of soil erosion on this group of soils. No special problem of windthrow hazard is recognized.

Equipment limitations are rated moderate. This limitation is due primarily to the factor of soil wetness. Wet periods of up to three months duration may be expected. Damage to soil structure and stability, and to tree roots, may occur if equipment is used during the restrictive period.

There are no special problems of drought hazard on these soils, due to their wet nature. However, during long summer droughts some growth damage may occur on Leon soils.

MR61-476-36X88

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MR61-476-37X86

APPENDIX A

Table 1. Average Site Index for Loblolly, Shortleaf, Virginia, and White Pine in the Limestone Valley and Mountain Resource Area of Georgia, by Soil Types

Soil Type[1]	Soil Mapping Number[2]	Average Site Index			
		Loblolly	Shortleaf	Virginia	White
Alluvial**	448	-[3]	81	-	112
Apison fine sandy loam	29	83	71	82	-
Apison gravelly fine sandy loam	30	79	68	83	-
Armuchee shaly silt loam	32	64	52	60	-
Balfour stony loam	133	-	61	-	-
Braddock fine sandy loam	9	-	68	78	92
Chandler fine sandy loam	159	-	52	70	-
Clarksville cherty silty clay loam	41	-	68	73	-
Clifton stony loam	158	-	-	-	67
Colbert silt loam	44	77	76	-	-
Colbert silt loam, shallow	45	60	-	-	-
Enders silt loam	57	-	71	-	-
Fannin fine sandy loam	3	110	53	85	-
Fannin loam	134	75	69	72	94

[1] Includes all slope and erosion phases.

[2] These numbers identify the soil type on unpublished soil maps now available.

[3] A dash indicates that no information is available.

**Soils marked by a double asterisk are currently known by a tentative name.

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APPENDIX A (Continued)

Table 1. Average Site Index for Loblolly, Shortleaf, Virginia, and White Pine in the Limestone Valley and Mountain Resource Area of Georgia, by Soil Types

Soil Type	Soil Mapping Number	Average Site Index			
		Loblolly	Shortleaf	Virginia	White
Fannin fine sandy clay loam	4	73	-	75	-
Fannin clay loam	135	-	90	80	100
Folsom silt loam	61	84	-	-	-
Folsom silty clay loam	62	86	-	-	-
Greendale silt loam	68	71	64	85	-
Habersham fine sandy loam	10	76	57	75	96
Habersham stony fine sandy loam	11	79	69	79	95
Halewood fine sandy loam	12	-	66	73	102
Halewood loam	137	-	70	82	-
Halewood clay loam, shallow	-	-	53	-	-
Hartsells fine sandy loam	70	-	62	76	-
Hayesville fine sandy loam	13	62	61	70	96
Hayesville stony fine sandy loam	72	-	50	-	-
Hayesville fine sandy clay loam	14	-	71	77	-
Hiwassee fine sandy loam	15	-	63	84	-
Hiwassee sandy loam	1	-	78	-	-
Hiwassee loam	26	-	87	83	98

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APPENDIX A (Continued)

Table 1. Average Site Index for Loblolly, Shortleaf, Virginia, and White Pine in the Limestone Valley and Mountain Resource Area of Georgia, by Soil Types

Soil Type	Soil Mapping Number	Average Site Index			
		Loblolly	Shortleaf	Virginia	White
Hiwassee clay loam	27	-	-	82	-
Jefferson fine sandy loam	17	90	90	-	-
Linker fine sandy loam	80	66	-	66	-
Montevallo silt loam	83	75	58	70	-
Muskingum stony fine sandy loam	85	-	63	62	-
Porters stony loam	141	-	67	-	94
Porters-Ashe stony loam	18	-	60	72	96
Porters-Ranger stony loam	140	-	-	-	92
Rabun loam	19	-	69	71	95
Rabun stony clay loam	142	72	71	75	-
Roane silt loam	93	80	-	-	-
Talladega fine sandy loam	6	70	53	70	-
Talladega stony loam	146	-	-	90	100
Tellico fine sandy loam	104	70	-	87	-
Tellico fine sandy clay loam	105	-	-	90	-
Thurmont fine sandy loam	23	-	43	-	-
Tusquitee loam	22	82	81	81	95
Tusquitee stony loam	151	-	88	86	83
Watauga loam	160	-	53	68	-

APPENDIX A (Continued)

Table 2. Average Site Index for Loblolly and Shortleaf Pine in the Piedmont Resource Area of Georgia, by Soil Types

Soil Type[1]	Soil Mapping Number[2]	Average Site Index	
		Loblolly	Shortleaf
Alluvial Land, moderately well drained**	448	93	84
Appling sandy loam	407	83	69*
Appling sandy clay loam	408	75*	65*
Appling loamy coarse sand	472	77	70*
Appling loamy coarse sand, thick surface	501	84	75*
Cecil sandy loam	410	82	68
Cecil sandy clay loam	411	74	66
Cecil stony sandy loam	413	80*	70*
Cecil coarse sandy loam	496	75*	65*
Cecil loamy coarse sand	506	75*	65*
Chewacla silt loam	401	100	80*
Colfax sandy loam	412	75*	66
Congaree fine sandy loam	470	105*	95*

1 Includes all slope and erosion phases.

2 These numbers identify the soil type on unpublished soil maps now available.

*A single asterisk indicates that the site index value was adjusted or supplied for the soil based on measurements from other soils of like physical characteristics; judgment, experience, and from published information.

**Soils marked by a double asterisk are currently known by a tentative name.

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APPENDIX A (Continued)

Table 2. Average Site Index for Loblolly and Shortleaf Pine in the Piedmont Resource Area of Georgia, by Soil Types

Soil Type	Soil Mapping Number	Average Site Index	
		Loblolly	Shortleaf
Davidson loam	415	80	73
Davidson clay loam	416	77	67
Efland loam	476	68	62*
Enon sandy loam	475	65	52
Georgeville silty clay loam	403	71	61*
Goldston silty clay loam	404	68	58*
Helena sandy loam	420	68	64*
Helena sandy clay loam	481	69	58*
Iredell fine sandy loam	465	73	58*
Iredell loam	482	66	58*
Lloyd sandy loam	422	80	70*
Lloyd clay loam	423	75	67
Lloyd loam	424	82	74
Lloyd fine sandy loam	466	79	70*
Louisa fine sandy clay loam	427	65*	55*
Louisburg loamy sand and sandy loam	428	75	65*
Louisburg stony loamy sand	429	75*	65*
Madison sandy loam	430	80*	70*

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APPENDIX A (Continued)

Table 2. Average Site Index for Loblolly and Shortleaf Pine in the Piedmont Resource Area of Georgia, by Soil Types

Soil Type	Soil Mapping Number	Average Site Index	
		Loblolly	Shortleaf
Madison sandy clay loam	467	75*	64*
Masada fine sandy loam	456	75*	65*
Mecklenburg sandy loam	483	76	62*
Mecklenburg sandy clay loam	434	70*	61*
Mecklenburg fine sandy loam	500	75*	66*
Nason fine sandy loam	484	69	60*
Orange silt loam	486	62	55*
Seneca sandy loam	438	95*	80*
Starr loam	439	100*	85*
Vance sandy loam	442	75	65*
Vance sandy clay loam	443	68	61*
Wickham fine sandy loam	444	75	68*
Wickham clay loam	445	67	60*
Wilkes sandy loam	446	75	57*

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APPENDIX A (Continued)

Table 3. Average Site Index for Loblolly, Slash, Longleaf, and Shortleaf Pine in the Coastal Plain Resource Area of Georgia, by Soil Types

Soil Type [1]	Soil Mapping Number [2]	Average Site Index			
		Loblolly	Slash	Longleaf	Shortleaf
Alluvial Land, imperfectly and poorly drained**	767	- [3]	82	-	-
Barth loamy fine sand	702	-	-	78	-
Bayboro loam and clay loam	844	94	-	-	-
Bladen sandy loam	703	88	-	-	-
Bladen loam and clay loam	849	94	-	-	-
Blanton sands, low	781	76	-	70	-
Bradley sandy loam	796	72	-	-	-
Boswell sandy clay loam	706	87	-	-	-
Boswell sandy loam	705	-	-	-	64
Cahaba loamy fine sand	707	77	-	-	-
Carnegie fine sandy loam, thick surface	708	-	-	70	-
Coxville sandy loam	711	88	-	-	-

1 Includes all slope and erosion phases.

2 These numbers identify the soil type on unpublished soil maps now available.

3 A dash indicates that no information is available.

**Soils marked by a double asterisk are currently known by a tentative name.

APPENDIX A (Continued)

Table 3. Average Site Index for Loblolly, Slash, Longleaf, and Shortleaf Pine in the Coastal Plain Resource Area of Georgia, by Soil Types

Soil Type	Soil Mapping Number	Average Site Index			
		Loblolly	Slash	Longleaf	Shortleaf
Edisto loamy sand	838	-	78	92	-
Edisto fine sandy loam	837	91	-	78	-
Eulonia sandy loam	831	95	-	70	-
Eulonia sandy loam, thick surface	832	86	-	-	-
Eustis sand	715	86	-	65	-
Eustis loamy sand	714	88	-	-	62
Eustis loamy sand, shallow	771	90	-	-	-
Fairhope sandy loam, thick surface	834	81	-	-	-
Flint fine sandy loam	717	86	89	71	-
Galestown sand	847	91	-	-	-
Gilead loamy sand (18" to 30")	776	89	88	66	77
Gilead loamy coarse sand, thick surface	782	-	79	81	-
Gilead loamy sand, thick surface	811	-	-	73	-
Goldsboro sandy loam	718	-	-	77	-
Goldsboro loamy sand, thick surface	783	96	93	85	-
Grady sandy loam	719	91	85	-	-
Grady clay loam	720	88	-	-	-
Greenville sandy loam	721	82	-	-	64

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APPENDIX A (Continued)

Table 3. Average Site Index for Loblolly, Slash, Longleaf, and Shortleaf Pine in the Coastal Plain Resource Area of Georgia, by Soil Types

Soil Type	Soil Mapping Number	Average Site Index			
		Loblolly	Slash	Longleaf	Shortleaf
Greenville clay loam	722	85	-	-	78
Henderson cherty sandy loam	777	-	-	-	70
Hoffman loamy sand	723	77	-	-	55
Huckabee sand	725	74	78	74	-
Independence sand	727	86	-	70	-
Irvington sandy loam	784	-	-	69	-
Irvington loamy sand, thick surface	830	-	86	91	-
Izagora loamy sand, thick surface	730	-	-	78	-
Kalmia sandy loam	731	100	93	86	-
Kershaw sand	733	-	-	62	-
Klej loamy sand, shallow	734	72	85	70	-
Klej sand	735	79	-	71	-
Lakeland loamy sands, shallow	736	96	-	71	-
Lakeland sands	737	85	82	65	92
Leaf fine sandy loam	738	104	-	-	-
Leon fine sand	739	-	78	65	-
Local alluvial land, moderately well drained**	768	76	-	72	67
Lynchburg sandy loam	741	90	94	77	-

APPENDIX A (Continued)

Table 3. Average Site Index for Loblolly, Slash, Longleaf, and Shortleaf Pine in the Coastal Plain Resource Area of Georgia, by Soil Types

Soil Type	Soil Mapping Number	Average Site Index			
		Loblolly	Slash	Longleaf	Shortleaf
Lynchburg loamy sand, thick surface	742	-	82	77	-
Magnolia sandy loam	743	80	-	-	76
Norfolk loamy sand, thick surface	747	84	-	78	-
Norfolk sandy loam	746	74	86	68	-
Norfolk fine sandy loam	810	84	88	-	-
Ona sands	748	-	79	68	-
Orangeburg sandy loam	749	88	-	-	80
Orangeburg loamy sand, thick surface	750	90	-	-	-
Plummer sands	751	104	91	89	-
Rains sandy loam, thick surface	752	-	82	-	-
Rains loamy sand, thick surface	807	-	82	-	-
Ruston loamy sand, thick surface	754	-	-	63	-
Ruston sandy loam	753	-	-	73	-
Susquehanna sandy loam	757	-	-	58	-
Susquehanna sandy clay loam	803	-	-	61	-
Sawyer sandy loam	756	-	89	70	-
Tifton sandy loam	758	-	83	75	-
Tifton sandy loam, thin solum	760	-	-	70	-

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APPENDIX A (Continued)

Table 3. Average Site Index for Loblolly, Slash, Longleaf, and Shortleaf Pine in the Coastal Plain Resource Area of Georgia, by Soil Types

Soil Type	Soil Mapping Number	Average Site Index			
		Loblolly	Slash	Longleaf	Shortleaf
Vaucluse-Gilead loamy sands	761	81	89	-	70
Vaucluse sandy loam	820	78	-	-	73
Weston fine sandy loam	839	89	95	70	-
Weston fine sandy loam, thick surface	840	89	-	-	-
Weston loamy coarse sand	841	90	95	-	-
Wahee fine sandy loam	763	81	-	74	-

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APPENDIX B

Criteria for Rating Soils

Each soil mapping unit listed in Woodland Suitability Groups was given a relative rating significant to management for each soil-related woodland conservation item. Criteria established for these relative ratings are discussed below.

Degree of Plant Competition

This refers to the rate that undesirable species invade different soils (brush encroachment) following removal of tree overstory or when openings are made in the canopy. This is significant to adequate restocking and growth of desired tree species. When classed as severe, desirable species must be released from competing vegetation. Each soil type was rated "slight", "moderate" or "severe" on the basis of increasing hazards due to brush encroachment, transition to less desirable species, undesirable plant competition, etc., after disturbance due to management or fire - assuming other factors to be normal. The specific rating criteria used were:

1. Slight. No special problem is recognized. Kinds of soils are such that invasion by undesirable species will not impede natural regeneration and growth of the designated species.

2. Moderate. A moderate problem is recognized. Competition develops on these soils but will not ordinarily prevent adequate stand establishment of the designated species. Establishment may be delayed and initial growth rate slowed, thereby delaying the development of a normal fully stocked stand. Site preparation is not essential to the establishment of an adequate stand of the designated species, but some simple management techniques can be used to minimize the problem.

3. Severe. A severe problem is recognized. Plant competition is so severe on these soils that natural regeneration cannot be relied upon to provide adequate restocking of designated species. Special management and site preparation treatments are necessary such as controlled burning, using chemical sprays, girdling, tree planting with some replanting as needed, etc.

Equipment Limitations

This item includes those soil characteristics and topographic features that restrict or prohibit the use of equipment commonly used in crop tending or tree harvesting. Knowledge of these factors may result in different recommendations for kinds of equipment, methods of operation, or season of use on different soils. Difference may be due to soil characteristics, stones, drainage, slope, or other factors normally used in establishing mapping units. Problems may be seasonal or yearlong. Each soil was rated "slight", "moderate" or "severe" on the basis of increasing problems. The specific criteria used in rating were:

1. Slight. No special problem is recognized. Kinds of soil are such that equipment use is not restricted in kind or time of year.

2. Moderate. A moderate problem is recognized. Kinds of soil are such that the type of equipment is only moderately limited. There may be seasonal restriction (less than three months per year) in use of equipment. Some damage to tree roots may be expected from equipment use on these soils.

3. Severe. A serious problem is recognized. Kinds of soil are such that type of equipment is limited. Equipment use may be restricted during a period greater than three months per year because of water level or soil moisture. Equipment use will cause serious damage to tree roots and to soil structure and stability.

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Seedling Mortality (Regeneration Potential)

This is the normal expected degree of mortality of naturally occurring or planted tree seedlings as influenced by kinds of soil in the first few years of growth. For plantations, it assumes use of planting stock of proper grade, in a healthy condition when planted, and proper planting. For naturally occurring seedlings it assumes an adequate seed supply. For both natural and planted seedlings it assumes the area to be free of pests (town ant and gophers), plant competition (undesirable species), and other environmental factors for the area to be normal. The rating classes are:

1. Slight. No special regeneration problem. Ordinary losses expected because of soil influences should not be over 25 percent of planted stock; satisfactory restocking by initial planting can be expected four out of five years. This is considered a high order of probability requiring replanting only during unfavorable years. Ordinarily, adequate natural regeneration will take place under appropriate silvicultural conditions.

2. Moderate. Moderate generation problem. Expected losses due to soil influences would ordinarily be between 25 to 50 percent. Satisfactory restocking by initial planting can be expected three years out of five, but some replanting may be necessary to fill in openings even during years of greatest success. Some seedbed preparation may be advisable to assure a higher probability of adequate and immediate restocking by initial planting. Natural regeneration cannot always be relied upon and special treatment measures may be advisable to assure adequate and immediate restocking.

3. Severe. Difficult regeneration problem. Natural regeneration cannot be relied upon and restocking is usually accomplished by planting. Expected losses, due to soil influences, ordinarily are over 50 percent for planted stock. Satisfactory restocking by initial planting can be expected only about two years out of five. Arrangements for replanting to fill in important openings and to replant areas of near or complete failure need to be considered in planning. Special seedbed preparation and superior planting techniques are advisable to assure adequate and immediate restocking of these soils.

Erosion Hazards

This is the erosion hazard of the soil when the area is managed according to currently recognized acceptable standards. The rating classes are:

1. Slight. Erosion hazard is slight. No special techniques in management are required.

2. Moderate. Erosion hazard is moderate. Some provision in management must be made to prevent accelerated erosion. Roads, skid trails, fire lanes, landing construction and maintenance require some special techniques.

3. Severe. Severe erosion hazard. Special techniques in management and special attention to roads, skid trails, fire lanes, landing construction and main tenance are necessary to minimize accelerated erosion.

Windthrow Hazards

This item is an evaluation of soil characteristics that control tree root development affecting wind firmness. Information is provided by field observations of wind damage to stands of varying densities on different soils. This evaluation is important in making recommendations by soils for stand density control in thinnings, release cuttings, regeneration, and final harvest cuttings.

1. Slight. No special problem is recognized.

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2. Moderate. A moderate windthrow hazard is recognized. Kinds of soils where root development of the designated species is adequate for stability except for periods of excessive wetness and during periods of greatest wind velocity.

3. Severe. A serious problem is recognized. Kinds of soils where depth of tree rooting does not give adequate stability. The restriction in rooting depth may be due to water level or a restrictive layer in the soil. Individual trees may be blown over if released on all sides.

Drought Hazards

This is the mortality or damage that can be attributed to the effects of prolonged droughts during the growing season. Damage can be quite severe on some shallow soils.

1. Slight. No expected mortality or damage.

2. Moderate. Moderate mortality and loss of growth by seedlings, saplings and trees of low vigor.

3. Severe. Severe mortality can be expected for seedlings and saplings. Diameter increment may be sharply reduced. Low vigor trees may be susceptible to disease and insect attacks.

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APPENDIX C

Glossary of Symbols Used in Describing Soils

Erosion Classification

1. Slight erosion -- more than 75 percent of original topsoil remaining.
2. Eroded -- from 25 to 75 percent of the original topsoil remaining.
3. Severe erosion -- less than 25 percent of original topsoil and 75 percent or more of subsoil remaining.
4. Very severe erosion -- all original topsoil removed over most of the area, but from 25 to 75 percent of subsoil remaining.
5. Gullied land.

Slope Classes

Limestone Valley and Mountain Resource Area and Piedmont Resource Area		Coastal Plain Resource Area	
A	0 to 2% - level	A	0 to 2% - level
B	2 to 6% - very gently sloping	B	2 to 5% - very gently sloping
C	6 to 10% - gently sloping	C	5 to 8% - gently sloping
D	10 to 15% - sloping	D	8 to 12% - sloping
E	15 to 25% - strongly sloping	E	12 to 17% - strongly sloping
F	25 to 60% - steep	F	17% + - steep
G	60% + - very steep		

Plot Position

RT	Ridge top
U	Upper slope
M	Middle slope
L	Lower slope
AF	Alluvial fan
T	Terrace
V	Flat

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APPENDIX D TABLE I - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE LIMESTONE VALLEY & MOUNTAIN RESOURCE AREA OF GEORGIA, LOBLOBBY PINE

SOIL TYPE 1/	SOIL NO.	SLOPE CLASS	EROSION CLASS	PLOT IDENTIFICATION				ASPECT	PLOT POSITION	FROST FREE DAYS	AVERAGE PRECIPITATION		NO. OF TREES MEASURED	AVG. HT. OF TREES IN PLOT	AVG. AGE OF TREES IN PLOT	SITE INDEX	AVG. SITE INDEX ALL PLOTS	STANDARD DEVIATION	VARIATION COEFFICIENT
				STATE	COUNTY	NUMBER	SOURCE				ANNUAL	GROWING SEASON							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Apison fine sandy loam	29	B	2	Ga.	Catoosa	L&M 114	FS	NW	U	202	54	28	2	55	27	83	83	--	--
Apison gravelly fine sandy loam	30	E	3	Ga.	Whitfield	L&M 115	FS	NE	U	192	54	27	2	50	25	78	78	--	--
Armuchee shaly silt loam	32	--	--	Ga.	Walker	L&M 12	FS	SW	L	213	54	29	3	64	47	67			
Armuchee shaly silt loam	32	D	5	Ga.	Walker	L&M 101	FS	SE	L	213	54	29	2	57	44	61	64	--	--
Colbert silt loam, shallow	45	B	1	Ga.	Catoosa	L&M 108	FS	SE	L	202	54	28	1	50	36	60	60	--	--
Colbert silt loam	44	B	1	Ga.	Catoosa	L&M 105	FS	SW	U	202	54	28	2	85	48	84			
Colbert silt loam	44	B	1	Ga.	Catoosa	L&M 109	FS	SW	M	202	54	28	1	65	40	71	77	--	--
Fannin fine sandy loam	3	D	2	Ga.	Dawson	L&M 27	FS	SE	M	201	59	31	1	94	43	110	110	--	--
Fannin fine sandy loam	4	C	3	Ga.	Lumpkin	L&M 31	FS	NE	M	205	61	31	1	45	22	73	73	--	--
Fannin loam	134	D	1	Ga.	Rabun	L&M 43	FS	SE	U	191	71	36	1	61	35	70			
Fannin loam	134	D	1	Ga.	Rabun	L&M 44	FS	SE	U	191	71	36	1	60	30	80			
Fannin loam	134	D	1	Ga.	Rabun	L&M 45	FS	SE	U	191	71	36	1	61	38	75	75	--	--
Folsom silt loam	61	B	2	Ga.	Whitfield	L&M 5	FS	SW	U	192	54	27	2	83	53	84	84	--	--
Folsom silty clay loam	62	--	--	Ga.	Whitfield	L&M 3	FS	NE	M	192	54	27	3	86	45	90			
Folsom silty clay loam	62	B	3	Ga.	Whitfield	L&M 5	FS	SW	U	192	54	27	3	82	50	82	86	--	--
Greendale cherty silt loam	68	B	1	Ga.	Floyd	L&M 90	FS	--	L	217	54	29	4	65	41	71	71	--	--
Habersham fine sandy loam	10	C	1	Ga.	Habersham	L&M 54	FS	SW	U	214	59	32	1	72	42	80			
Habersham fine sandy loam	10	C	1	Ga.	Habersham	L&M 57	FS	SW	U	214	59	32	1	71	48	72	76	--	--
Habersham stony fine sandy loam	11	C	1	Ga.	Habersham	L&M 35	FS	NE	U	214	59	32	1	61	32	75			
Habersham stony fine sandy loam	11	D	1	Ga.	Habersham	L&M 40	FS	SW	M	214	59	32	1	62	35	72			
Habersham stony fine sandy loam	11	E	1	Ga.	Rabun	L&M 41	FS	SW	M	191	71	36	1	69	34	81			
Habersham stony fine sandy loam	11	E	1	Ga.	Rabun	L&M 65	FS	SE	M	191	71	36	1	82	45	90	79	8.14	10.30
Hayesville fine sandy loam	13	E	1	Ga.	Rabun	L&M 46	FS	NE	M	191	71	36	1	53	40	58			
Hayesville fine sandy loam	13	E	2	Ga.	Rabun	L&M 36	FS	NW	M	191	71	36	1	51	30	65	62	--	--
Jefferson fine sandy loam	17	--	--	Ga.	Walker	L&M 13	FS	NW	M	213	54	29	2	86	46	90			
Jefferson fine sandy loam	17	B	1	Ga.	Catoosa	L&M 95	FS	--	L	202	54	28	2	72	33	90	90	--	--
Linker fine sandy loam	80	C	1	Ga.	Dade	1015	SCS	S	M	201	54	27	1	53	32	62			
Linker fine sandy loam	80	C	2	Ga.	Dade	1014	SCS	S	U	201	54	27	6	45	19	70	66	--	--
Montevallo silt loam	83	--	--	Ga.	Walker	L&M 10	FS	--	U	213	54	29	2	73	58	70			
Montevallo silt loam	83	--	--	Ga.	Walker	L&M 10	FS	SE	--	213	54	29	4	78	39	89			
Montevallo silt loam	83	B	2	Ga.	Walker	L&M 103	FS	SE	U	213	54	29	1	65	47	67	75	--	--
Rabun stony loam	142	E	1	Ga.	Gilmer	L&M 69	FS	NE	L	194	65	33	3	78	67	72	72	--	--
Roane silt loam	93	A	1	Ga.	Floyd	L&M 89	FS	--	L	217	54	29	3	80	50	80	80	--	--
Talladega fine sandy loam	6	F	1	Ga.	Pickens	L&M 68	FS	NE	M	213	59	29	4	62	42	70	70	--	--
Tellico sandy loam	104	E	2	Ga.	Catoosa	1004	SCS	S	U	202	54	28	6	47	22	70	70	--	--
Tusquitee loam	22	B	1	Ga.	Dawson	L&M 14	FS	--	U	201	59	31	1	90	58	86			
Tusquitee loam	22	D	1	Ga.	Rabun	L&M 53	FS	SW	U	191	71	36	1	65	35	79			
Tusquitee loam	22	D	1	Ga.	Rabun	L&M 56	FS	SE	U	191	71	36	1	62	31	80	82	--	--

1/ For explanation of headings and columns see footnote at end of Appendix D.

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APPENDIX D TABLE 2 - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE LIMESTONE VALLEY & MOUNTAIN RESOURCE AREA OF GEORGIA, SHORTLEAF PINE

SOIL TYPE 1/	SOIL NO.	SLOPE CLASS	EROSION CLASS	PLOT IDENTIFICATION				ASPECT	PLOT POSITION	FROST FREE DAYS	AVERAGE PRECIPITATION		NO. OF TREES MEASURED	AVG. HT. OF TREES IN PLOT	AVG. AGE OF TREES IN PLOT	SITE INDEX	AVG. SITE INDEX ALL PLOTS	STANDARD DEVIATION	VARIATION COEFFICIENT
				STATE	COUNTY	NUMBER	SOURCE				ANNUAL	GROWING SEASON							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Alluvial*	448	A	1	Ga.	Habersham	7P-118	FS	NE	AF	214	59	32	5	69	35	81	81	--	--
Apison fine sandy loam	29	B	2	Ga.	Catoosa	L&M 99	FS	NW	U	202	54	28	2	59	37	74			
Apison fine sandy loam	29	E	3	Ga.	Whitfield	L&M 7	FS	SW	M	192	54	27	3	63	42	68	71	--	--
Apison gravelly fine sandy loam	30	E	3	Ga.	Whitfield	L&M 116	FS	NE	L	192	54	27	1	47	27	68	68	--	--
Armuchee shaly silt loam	32	D	5	Ga.	Walker	L&M 100	FS	NE	L	213	54	29	1	45	38	52	52	--	--
Balfour stony loam	133	D	1	Ga.	Murray	L&M 74	FS	NE	U	192	54	27	4	50	25	84			
Balfour stony loam	133	E	1	Ga.	Murray	L&M 72	FS	SW	M	192	54	27	3	54	52	55			
Balfour stony loam	133	E	1	Ga.	Murray	L&M 73	FS	SW	L	192	54	27	6	39	28	80			
Balfour stony loam	133	F	1	Ga.	Murray	L&M 75	FS	NE	M	192	54	27	4	41	38	46	61	16.23	26.61
Braddock fine sandy loam	9	C	2	Ga.	Haberaham	BP-38	FS	SW	AF	214	59	32	5	64	80	52			
Braddock fine sandy loam	9	C	2	Ga.	Habersham	BP-38	FS	SE	AF	214	59	32	5	73	51	72			
Braddock fine sandy loam	9	F	1	Ga.	White	5P-186	FS	SE	AF	209	60	32	5	86	57	80	68	--	--
Chandler loam	159	F	1	Ga.	Habersham	BP-150	FS	SE	U	214	59	32	5	67	91	52	52	--	--
Clarksville cherty silty clay loam	41	E	3	Ga.	Whitfield	L&M 2	FS	NW	M	192	54	27	2	50	33	66			
Clarksville cherty silty clay loam	41	E	5	Ga.	Whitfield	L&M 6	FS	NE	M	192	54	27	3	58	37	89	68	--	--
Colbert silt loam	44	B	1	Ga.	Catoosa	L&M 108	FS	SE	U	202	54	28	1	82	65	73			
Colbert silt loam	44	B	1	Ga.	Catoosa	L&M 110	FS	--	M	202	54	28	2	64	35	78	76	--	--
Enders silt loam	57	B	1	Ga.	Dade	188	SCS	S	U	201	54	27	6	71	50	71	71	--	--
Fannin fine sandy loam	3	D	1	Ga.	Habersham	BP-36	FS	E	RT	214	59	32	5	63	83	50			
Fannin fine sandy loam	3	D	1	Ga.	Habersham	BP-118	FS	E	RT	214	59	32	5	53	64	48			
Fannin fine sandy loam	3	D	1	Ga.	Habersham	BP-36	FS	E	RT	214	59	32	5	60	91	48			
Fannin fine sandy loam	3	D	2	Ga.	Dawson	L&M 24	FS	NW	--	201	59	31	1	60	52	60			
Fannin fine sandy loam	3	D	2	Ga.	Haberaham	BP-118	FS	E	RT	214	59	32	5	47	38	54	53	5.09	9.60
Fannin loam	134	B	2	Ga.	Dawson	L&M 24	FS	--	U	213	59	29	1	52	25	75			
Fannin loam	--	C	1	S.C.	Oconee	740	SCS	--	U	203	60	34	3	52	37	61			
Fannin loam	--	C	1	S.C.	Oconee	743	SCS	--	U	203	60	34	1	66	49	67			
Fannin loam	134	D	1	Ga.	Rabun	L&M 42	FS	SE	U	191	71	36	1	60	38	70			
Fannin loam	134	D	1	Ga.	Rabun	L&M 44	FS	SE	U	191	71	36	1	60	37	72			
Fannin loam	134	D	1	Ga.	Rabun	L&M 45	FS	SE	U	191	71	36	1	62	41	70			
Fannin loam	--	D	1	S.C.	Oconee	739	SCS	--	U	203	60	34	3	73	44	78			
Fannin loam	--	D	1	S.C.	Oconee	742	SCS	--	U	203	60	34	2	59	54	56			
Fannin loam	--	E	2	S.C.	Oconee	A 83	FS	SE	L	203	60	34	46	55	73	70	69	6.76	9.80
Fannin clay loam	135	E	3	Ga.	Rabun	L&M 37	FS	SW	L	191	71	36	1	97	65	90	90	--	--
Greendale silt loam	68	B	1	Ga.	Floyd	L&M 93	FS	SE	U	217	54	29	3	53	34	64	64	--	--
Habersham fine sandy loam	10	C	1	Ga.	Habersham	L&M 39	FS	NE	U	214	59	32	2	41	24	57			
Habersham fine sandy loam	10	C	1	Ga.	Habersham	L&M 54	FS	SW	U	214	59	32	1	56	38	65			
Habersham fine sandy loam	10	C	1	Ga.	Haberaham	L&M 57	FS	SW	U	214	59	32	1	45	31	60			
Habersham fine sandy loam	10	C	1	Ga.	Habersham	BP-38	FS	SE	RT	214	59	32	5	49	74	45			
Habersham fine sandy loam	10	C	2	Ga.	Habersham	BP-120	FS	--	RT	214	59	32	5	54	58	52			
Habersham fine sandy loam	10	D	1	Ga.	Habersham	L&M 52	FS	SW	L	214	59	32	1	70	63	62	57	7.30	12.81
Habersham stony fine sandy loam	11	D	1	Ga.	Habersham	L&M 40	FS	SW	M	214	59	32	1	61	48	62			
Habersham stony fine sandy loam	11	E	1	Ga.	Habersham	L&M 32	FS	--	M	214	59	32	1	70	34	80			
Habersham stony fine sandy loam	11	E	1	Ga.	Rabun	L&M 41	FS	SW	M	191	71	36	1	57	35	70			
Habersham stony fine sandy loam	11	E	1	Ga.	Rabun	L&M 42	FS	SE	M	191	71	36	1	78	61	72			
Habersham stony fine sandy loam	11	E	1	Ga.	Rabun	L&M 60	FS	SE	M	191	71	36	1	72	47	80			
Habersham stony fine sandy loam	11	E	1	Ga.	Habersham	BP-38	FS	S	L	214	59	32	5	61	83	48	69	--	--
Halewood fine sandy loam	12	C	1	S.C.	Pickens	709a	SCS	--	U	195	67	35	2	78	54	75			
Halewood fine sandy loam	12	D	1	Ga.	Habersham	BP-116	FS	SW	RT	214	59	32	5	58	49	58			
Halewood fine sandy loam	12	D	1	S.C.	Pickens	709b	SCS	--	U	195	67	35	2	75	63	67			

1/ For explanation of headings and columns see footnote at end of Appendix D.

* Tentative soil name.

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APPENDIX D TABLE 2 - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE LIMESTONE VALLEY & MOUNTAIN RESOURCE AREA OF GEORGIA, SHORTLEAF PINE

SOIL TYPE 1	SOIL NO. 2	SLOPE CLASS 3	EROSION CLASS 4	PLOT IDENTIFICATION				ASPECT 9	PLOT POSITION 10	FROST FREE DAYS 11	AVERAGE PRECIPITATION		NO. OF TREES MEASURED 14	AVG. HT. OF TREES IN PLOT 15	AVG. AGE OF TREES IN PLOT 16	SITE INDEX 17	AVG. SITE INDEX ALL PLOTS 18	STANDARD DEVIATION 19	VARIATION COEFFICIENT 20
				STATE 5	COUNTY 6	NUMBER 7	SOURCE 8				ANNUAL 12	GROWING SEASON 13							
Halewood fine sandy loam (cont.)	12	D	2	S.C.	Pickens	P-2	SCS	--	M	195	67	35	1	71	67	80			
Halewood fine sandy loam	12	F	1	S.C.	Pickens	735	SCS	--	M	195	67	35	1	66	56	60			
Halewood fine sandy loam	12	F	1	S.C.	Pickens	725	SCS	--	L	195	67	35	1	79	61	72			
Halewood fine sandy loam	12	F	1	Ga.	Habersham	6P-116	FS	SE	M	214	59	32	5	65	55	62			
Halewood fine sandy loam	12	F	1	Ga.	Habersham	2P-176	FS	NE	U	214	59	32	5	66	59	56	66	8.70	13.16
Halewood silt loam	--	B	2	S.C.	Oconee	07	SCS	--	U	203	60	34	1	40	30	51	51	--	--
Halewood clay loam	--	E	3	S.C.	Pickens	706	SCS	--	L	195	67	35	1	66	37	79			
Halewood clay loam	--	F	3	S.C.	Pickens	706	SCS	--	L	195	67	35	1	69	37	60	60	--	--
Halewood clay loam, shallow	--	C	3	S.C.	Pickens	39-13	SCS	--	U	195	67	35	1	53	46	53	53	--	--
Hartsells fine sandy loam	70	--	--	Ga.	Walker	L&M 6	Ga.	SW	--	213	54	29	3	70	50	70			
Hartsells fine sandy loam	70	B	1	Ga.	Dade	1012	SCS	N	U	201	54	27	6	49	26	64			
Hartsells fine sandy loam	70	B	1	Ga.	Dade	1002	SCS	N	U	201	54	27	6	55	49	55			
Hartsells fine sandy loam	70	B	1	Ga.	Dade	194	SCS	N	U	201	54	27	6	51	45	53			
Hartsells fine sandy loam	70	C	2	Ga.	Dade	167	SCS	NE	U	201	54	27	4	55	26	72			
Hartsells fine sandy loam	70	C	1	Ga.	Dade	193	SCS	S	U	201	54	27	6	51	45	53			
Hartsells fine sandy loam	70	D	4	Ga.	Catoosa	L&M 96	Ga.	SE	L	202	54	26	1	54	35	68	62	--	--
Hayesville fine sandy loam	13	B	1	S.C.	Oconee	0-14	SCS	--	M	203	60	34	3	54	34	66			
Hayesville fine sandy loam	13	C	1	Ga.	Lumpkin	L&M 26	FS	SW	M	205	61	31	1	72	69	72			
Hayesville fine sandy loam	13	C	2	Ga.	Dawson	L&M 24	FS	NW	--	201	59	31	1	67	47	69			
Hayesville fine sandy loam	13	C	2	Ga.	Dawson	L&M --	FS	NW	M	201	59	31	1	67	52	66			
Hayesville fine sandy loam	13	D	1	S.C.	Pickens	724	SCS	--	L	195	67	35	2	56	30	74			
Hayesville fine sandy loam	13	D	1	Ga.	Habersham	7P-26	FS	NE	U	214	59	32	5	56	72	46			
Hayesville fine sandy loam	13	D	1	Ga.	Habersham	7P-42	FS	SW	M	214	59	32	5	66	69	56			
Hayesville fine sandy loam	13	D	1	Ga.	White	2P-166	FS	E	RT	209	60	32	5	57	61	49			
Hayesville fine sandy loam	13	D	2	Ga.	Habersham	7P-42	FS	SW	M	214	59	32	5	75	56	71			
Hayesville fine sandy loam	13	E	1	Ga.	Rabun	L&M 46	FS	NE	M	191	71	36	1	53	40	60			
Hayesville fine sandy loam	13	E	1	Ga.	Rabun	L&M 49	FS	NE	M	191	71	36	1	46	45	50			
Hayesville fine sandy loam	13	E	1	Ga.	Rabun	L&M 51	FS	NE	M	191	71	36	1	60	50	60			
Hayesville fine sandy loam	13	E	1	S.C.	Oconee	0-19	SCS	--	M	203	60	34	3	66	69	56			
Hayesville fine sandy loam	13	E	2	Ga.	Rabun	L&M 50	FS	NW	M	191	71	36	1	42	31	52			
Hayesville fine sandy loam	13	E	2	Ga.	Rabun	L&M 36	FS	NW	M	191	71	36	1	42	30	55			
Hayesville fine sandy loam	13	E	2	S.C.	Pickens	760	SCS	--	M	195	67	35	1	61	30	80			
Hayesville fine sandy loam	13	E	1	Ga.	Habersham	7P-42	FS	SW	L	214	59	32	5	65	76	53			
Hayesville fine sandy loam	13	E	1	Ga.	White	6P-60	FS	NW	M	209	60	32	5	62	51	62			
Hayesville fine sandy loam	13	E	1	Ga.	White	6P-60	FS	SW	RT	209	60	32	5	66	70	56			
Hayesville fine sandy loam	13	E	1	S.C.	Pickens	715	SCS	--	M	195	67	35	2	56	45	61			
Hayesville fine sandy loam	13	F	1	Ga.	White	5P-166	FS	S	L	209	60	32	5	59	40	67	61	--	--
Hayesville clay loam	14	B	3	S.C.	Oconee	0-6	SCS	--	U	203	60	34	2	62	56	75			
Hayesville clay loam	14	C	3	S.C.	Oconee	0-21	SCS	--	U	215	54	30	1	58	64	52			
Hayesville clay loam	14	D	3	S.C.	Pickens	727	SCS	--	U	195	67	35	3	53	33	66			
Hayesville clay loam	14	E	3	S.C.	Pickens	727	SCS	--	M	195	67	35	2	65	31	65			
Hayesville clay loam	14	F	3	S.C.	Pickens	717	SCS	--	M	195	67	35	4	65	36	75	71	--	--
Hayesville stony fine sandy loam	72	D	1	S.C.	Pickens	723	SCS	--	U	195	67	35	1	52	56	46			
Hayesville stony fine sandy loam	72	F	1	Ga.	White	6P-146	FS	SE	M	209	60	32	5	56	57	52	50	--	--
Hiwassee fine sandy loam	15	D	1	Ga.	Habersham	7P-26	FS	NE	T	214	59	32	5	51	33	62			
Hiwassee fine sandy loam	15	D	2	Ga.	Habersham	7P-116	FS	E	T	214	59	32	5	75	72	63	63	--	--
Hiwassee sandy loam	1	B	1	Ga.	White	UG 1	UG	NE	L	209	60	32	3	65	34	78	76	--	--
Hiwassee loam	26	C	2	Ga.	Rabun	L&M 34	FS	SW	M	191	71	36	1	67	36	90			
Hiwassee loam	26	C	2	Ga.	Rabun	L&M 58	FS	SE	M	191	71	36	1	56	33	70			
Hiwassee loam	26	C	2	Ga.	Rabun	L&M 59	FS	SE	M	191	71	36	1	65	34	100	67	--	--

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APPENDIX D TABLE 2 - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE LIMESTONE VALLEY & MOUNTAIN RESOURCE AREA OF GEORGIA, SHORTLEAF PINE

SOIL TYPE 1	SOIL NO. 2	SLOPE CLASS 3	EROSION CLASS 4	PLOT IDENTIFICATION				ASPECT 9	PLOT POSITION 10	FROST FREE DAYS 11	AVERAGE PRECIPITATION		NO. OF TREES MEASURED 14	AVG. HT. OF TREES IN PLOT 15	AVG. AGE OF TREES IN PLOT 16	SITE INDEX 17	AVG. SITE INDEX ALL PLOTS 18	STANDARD DEVIATION 19	VARIATION COEFFICIENT 20
				STATE 5	COUNTY 6	NUMBER 7	SOURCE 8				ANNUAL 12	GROWING SEASON 13							
Jefferson fine sandy loam	17	B	1	Ga.	Catoosa	L&M 96	FS	--	L	202	54	28	1	71	32	90	90	--	--
Montevallo silt loam	83	--	--	Ga.	Walker	L&M 10	FS	SE	--	213	54	29	2	57	43	62			
Montevallo silt loam	83	B	2	Ga.	Walker	L&M 102	FS	SW	N	213	54	29	1	65	74	53	58	--	--
Muskingum fine sandy loam	85	D	1	Ga.	Dade	186	SCS	N	U	201	54	27	6	64	42	69			
Muskingum fine sandy loam	85	D	1	Ga.	Dade	1013	SCS	N	U	201	54	27	7	52	41	57	63	--	--
Porters sandy loam	--	B	2	S.C.	Pickens	P-12	SCS	--	U	195	67	35	1	59	40	67	67	--	--
Porters-Ashe stony loam	18	D	1	Ga.	Rabun	L&M 33	FS	--	U	191	71	36	1	53	37	60	60	--	--
Rabun loam	19	C	1	S.C.	Pickens	710	SCS	--	U	195	67	35	3	66	48	68			
Rabun loam	19	E	1	Ga.	Lumpkin	L&M 28	FS	NW	M	205	61	31	1	55	51	55			
Rabun loam	19	E	2	Ga.	Lumpkin	L&M 29	FS	SW	M	205	61	31	1	80	46	85	69	--	--
Rabun stony clay loam	142	E	1	Ga.	Gilmer	L&M 64	FS	SE	M	194	65	33	3	53	30	70			
Rabun stony clay loam	142	E	1	Ga.	Gilmer	L&M 71	FS	NE	M	194	65	33	4	69	48	71	71	--	--
Talladega fine sandy loam	6	E	1	Ga.	Pickens	L&M 77	FS	SW	M	213	59	29	4	47	42	50			
Talladega fine sandy loam	6	E	1	Ga.	Pickens	L&M 92	FS	--	L	213	59	29	5	44	38	52			
Talladega fine sandy loam	6	E	1	Ga.	Gilmer	L&M 94	FS	NE	U	194	65	33	4	44	40	51			
Talladega fine sandy loam	6	F	1	Ga.	Habersham	8P-116	FS	SE	M	214	59	32	5	70	53	68			
Talladega fine sandy loam	6	F	1	Ga.	Habersham	8P-116	FS	SE	M	214	59	32	5	45	49	45	53	--	--
Thermont fine sandy loam	23	C	2	Ga.	Habersham	8P- 38	FS	S	AF	214	59	32	5	57	103	43	43	--	--
Tusquitee loam	22	B	1	Ga.	Dawson	L&M 14	FS	--	U	201	59	31	1	84	53	83			
Tusquitee loam	22	B	1	Ga.	Rabun	L&M 55	FS	SE	U	191	71	36	1	58	30	78			
Tusquitee loam	22	C	2	S.C.	Oconee	O-5	SCS	--	L	203	60	32	2	91	52	89			
Tusquitee loam	22	C	1	Ga.	Habersham	8P-116	FS	NE	AF	214	59	32	5	73	37	85			
Tusquitee loam	22	D	1	Ga.	Rabun	L&M 56	FS	SE	U	191	71	36	1	55	32	70			
Tusquitee loam	22	D	1	Ga.	White	6P-150	FS	SE	AF	209	60	32	5	67	39	75			
Tusquitee loam	22	F	1	S.C.	Pickens	707	SCS	--	L	195	67	35	3	87	47	89	81	--	--
Tusquitee stony loam	151	D	1	Ga.	Habersham	7P-26	FS	NW	AF	214	59	32	5	72	34	88	88	--	--
Watauga loam	160	E	1	Ga.	Habersham	6P-150	FS	NW	U	214	59	32	5	43	33	53	53	--	--

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APPENDIX D TABLE 3 - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE LIMESTONE VALLEY & MOUNTAIN RESOURCE AREA OF GEORGIA, VIRGINIA PINE

SOIL TYPE 1/	SOIL NO.	SLOPE CLASS	EROSION CLASS	PLOT IDENTIFICATION				ASPECT	PLOT POSITION	FROST FREE DAYS	AVERAGE PRECIPITATION		NO. OF TREES MEASURED	AVG. HT. OF TREES IN PLOT	AVG. AGE OF TREES IN PLOT	SITE INDEX	AVG. SITE INDEX ALL PLOTS	STANDARD DEVIATION	VARIATION COEFFICIENT
				STATE	COUNTY	NUMBER	SOURCE				ANNUAL	GROWING SEASON							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Apison fine sandy loam	29	B	2	Ga.	Catoosa	L&M 113	FS	NW	U	202	54	28	1	55	25	82	82	--	--
Apison gravelly fine sandy loam	30	E	3	Ga.	Whitfield	L&M 117	FS	NE	L	192	54	27	2	53	25	83	83	--	--
Armuchee shaly silt loam	32	--	--	Ga.	Walker	L&M 12	FS	SE	U	213	54	29	2	70	54	69			
Armuchee shaly silt loam	32	D	5	Ga.	Walker	L&M 112	FS	NE	L	213	54	29	1	38	37	50	60	--	--
Braddock fine sandy loam	9	C	2	Ga.	Habersham	8P-38	FS	SW	AF	214	59	32	5	66	43	71			
Braddock fine sandy loam	9	F	1	Ga.	White	5P-182	FS	SE	AF	209	60	32	5	70	37	85			
Braddock fine sandy loam	9	F	1	Ga.	White	5P-186	FS	SE	AF	209	60	32	5	80	51	80			
Braddock fine sandy loam	9	F	1	Ga.	White	5P-186	FS	NW	AF	209	60	32	5	81	59	76	78	5.94	7.62
Chandler loam	159	F	1	Ga.	Habersham	6P-150	FS	SE	U	214	59	32	5	56	36	70	70	--	--
Clarksville cherty silty clay loam	41	E	3	Ga.	Whitfield	L&M 1	FS	NW	M	192	54	27	3	57	36	74			
Clarksville cherty silty clay loam	41	E	3	Ga.	Whitfield	L&M 4	FS	SW	M	192	54	27	3	47	31	71	73	--	--
Fannin fine sandy loam	3	B	2	Ga.	Dawson	L&M 21	FS	--	--	201	59	31	1	68	30	90			
Fannin fine sandy loam	3	D	2	Ga.	Dawson	L&M 21	FS	SE	--	201	59	31	1	71	41	80	85	--	--
Fannin loam	134	B	1	S.C.	Oconee	738	SCS	--	U	203	60	32	2	71	50	71			
Fannin loam	134	B	2	S.C.	Oconee	O-13	SCS	--	U	203	60	32	3	74	56	72			
Fannin loam	134	C	1	S.C.	Oconee	743	SCS	--	U	203	60	32	3	72	49	73			
Fannin loam	134	D	1	Ga.	Rabun	L&M 43	FS	SE	U	191	71	36	1	56	40	65			
Fannin loam	134	D	1	Ga.	Rabun	L&M 44	FS	SE	U	191	71	36	1	64	40	75			
Fannin loam	134	D	1	Ga.	Rabun	L&M 45	FS	SE	U	191	71	36	1	57	37	70			
Fannin loam	134	D	2	Ga.	Dawson	L&M 21	FS	SE	--	201	59	31	1	63	42	75	72	3.33	4.62
Fannin fine sandy clay loam	4	C	3	Ga.	Lumpkin	L&M 23	FS	NE	--	205	61	31	1	45	27	75	75		
Fannin clay loam	135	E	3	Ga.	Rabun	L&M 37	FS	SW	L	191	71	36	1	81	52	80	80	--	--
Greendale cherty silt loam	68	B	1	Ga.	Floyd	L&M 91	FS	NE	U	217	54	29	3	60	31	85	85	--	--
Habersham fine sandy loam	10	C	1	Ga.	Habersham	L&M 39	FS	NE	U	214	59	32	1	42	24	75			
Habersham fine sandy loam	10	C	1	Ga.	Habersham	L&M 54	FS	SW	U	214	59	32	1	65	40	75			
Habersham fine sandy loam	10	C	1	Ga.	Habersham	L&M 57	FS	SW	U	214	59	32	1	55	34	73			
Habersham fine sandy loam	10	C	2	Ga.	Haberaham	8P-120	FS	RT	U	214	59	32	5	47	24	80			
Habersham fine sandy loam	10	D	1	Ga.	Habersham	L&M 47	FS	SW	L	214	59	32	1	52	30	75			
Habersham fine sandy loam	10	D	1	Ga.	Habersham	L&M 52	FS	SW	L	214	59	32	1	40	25	70	75	3.28	4.37
Habersham stony fine sandy loam	11	C	1	Ga.	Habersham	L&M 35	FS	NE	U	214	59	32	2	48	27	79			
Habersham stony fine sandy loam	11	D	1	Ga.	Habersham	L&M 40	FS	SW	M	214	59	32	1	62	40	75			
Haberaham stony fine sandy loam	11	E	1	Ga.	Habersham	L&M 32	FS	--	M	214	59	32	1	60	30	85			
Habersham stony fine sandy loam	11	E	1	Ga.	Rabun	L&M 41	FS	SW	M	191	71	36	1	56	33	75			
Habersham stony fine sandy loam	11	E	1	Ga.	Rabun	L&M 42	FS	SE	M	191	71	36	1	80	56	80			
Habersham stony fine sandy loam	11	E	1	Ga.	Rabun	L&M 60	FS	SE	M	191	71	36	1	72	46	80	79	3.74	4.73
Halewood fine sandy loam	12	F	1	Ga.	Habersham	2P-176	FS	NE	U	214	59	32	5	61	46	64			
Halewood fine sandy loam	12	F	1	S.C.	Pickens	725	SCS	--	M	195	67	35	1	84	51	83			
Halewood fine sandy loam	12	F	1	S.C.	Pickens	708	SCS	--	L	195	67	35	1	89	64	84			
Halewood fine sandy loam	12	F	1	Ga.	White	5P-186	FS	W	U	209	60	32	5	57	39	60	73	12.50	17.12
Halewood clay loam	137	E	3	S.C.	Pickens	708	SCS	--	L	195	67	35	1	75	39	84			
Halewood clay loam	137	F	3	S.C.	Pickens	708	SCS	--	M	195	67	35	1	72	39	80	82	--	--
Hartsella fine sandy loam	70	B	1	Ga.	Dade	190	SCS	N	U	201	54	27	6	54	33	68			
Hartsells fine sandy loam	70	B	2	Ga.	Dade	192	SCS	N	L	201	54	27	5	48	23	80			
Hartsells fine sandy loam	70	B	2	Ga.	Walker	1016	SCS	N	U	213	54	29	6	56	32	73			
Hartsells fine sandy loam	70	C	2	Ga.	Dade	187	SCS	N	U	201	54	27	6	55	26	83			
Hartsells fine sandy loam	70	D	4	Ga.	Catoosa	L&M 97	FS	SE	L	202	54	28	1	53	28	76	76	5.85	7.70
Hayesville fine sandy loam	13	B	1	S.C.	Oconee	O-14	SCS	--	M	203	60	32	1	62	31	82			
Hayesville fine sandy loam	13	C	2	Ga.	Habersham	P-62	FS	SW	--	214	59	32	3	58	38	70			
Hayesville fine sandy loam	13	C	2	Ga.	Habersham	P-63	FS	NE	U	214	59	32	3	59	27	87			
Hayesville fine sandy loam	13	C	2	Ga.	Dawson	L&M 21	FS	NW	--	201	59	31	1	67	52	68			

1/ For explanation of headings and columns see footnote at end of Appendix D.

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APPENDIX D TABLE 3 - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE LIMESTONE VALLEY & MOUNTAIN RESOURCE AREA OF GEORGIA, VIRGINIA PINE

SOIL TYPE	SOIL NO.	SLOPE CLASS	EROSION CLASS	PLOT IDENTIFICATION				ASPECT	PLOT POSITION	FROST FREE DAYS	AVERAGE PRECIPITATION		NO. OF TREES MEASURED	AVG. HT. OF TREES IN PLOT	AVG. AGE OF TREES IN PLOT	SITE INDEX	AVG. SITE INDEX ALL PLOTS	STANDARD DEVIATION	VARIATION COEFFICIENT
				STATE	COUNTY	NUMBER	SOURCE				ANNUAL	GROWING SEASON							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Hayesville fine sandy loam (cont.)	13	D	1	S.C.	Pickens	724	SCS	--	L	195	67	35	1	62	30	81			
Hayesville fine sandy loam	13	D	1	Ga.	Habersham	7P-42	FS	SW	M	214	59	32	5	71	66	64			
Hayesville fine sandy loam	13	D	2	Ga.	Habersham	7P-42	FS	SW	L	214	59	32	5	72	49	73			
Hayesville fine sandy loam	13	D	1	Ga.	White	2P-186	FS	E	RT	209	60	32	5	62	59	57			
Hayesville fine sandy loam	13	E	1	S.C.	Pickens	721	SCS	--	M	195	67	35	1	69	38	78			
Hayeaville fine sandy loam	13	E	1	S.C.	Pickens	721	SCS	--	U	195	67	35	1	62	36	71			
Hayesville fine sandy loam	13	E	1	Ga.	Rabun	L&M 46	FS	NE	M	191	71	36	1	53	45	55			
Hayesville fine sandy loam	13	E	1	Ga.	Rabun	L&M 48	FS	NE	M	191	71	36	1	66	39	80			
Hayesville fine sandy loam	13	E	1	Ga.	Rabun	L&M 49	FS	NE	M	191	71	36	1	62	41	70			
Hayesville fine sandy loam	13	E	1	Ga.	Rabun	L&M 51	FS	NE	M	191	71	36	1	60	40	70			
Hayesville fine sandy loam	13	E	2	Ga.	Rabun	L&M 36	FS	NW	M	191	71	36	1	40	30	55			
Hayesville fine sandy loam	13	E	2	S.C.	Pickens	771	SCS	--	U	195	67	35	1	75	43	80			
Hayesville fine sandy loam	13	E	2	S.C.	Pickens	716	SCS	--	M	195	67	35	1	59	32	74			
Hayesville fine sandy loam	13	E	1	Ga.	White	2P-186	FS	NW	M	209	60	32	5	60	49	64			
Hayesville fine sandy loam	13	E	1	Ga.	White	6P- 60	FS	SW	--	209	60	32	5	57	37	68			
Hayeaville fine sandy loam	13	E	2	Ga.	White	6P- 60	FS	E	RT	209	60	32	5	60	37	72			
Hayesville fine sandy loam	13	F	1	Ga.	White	5P-172	FS	SE	RT	209	60	32	5	57	37	68			
Hayesville fine sandy loam	13	F	1	Ga.	White	5P-186	FS	S	L	209	60	32	5	56	45	60			
Hayesville fine sandy loam	13	F	1	Ga.	White	5P-186	FS	--	--	209	60	32	5	--	--	76	70	9.13	13.04
Hayesville fine sandy clay loam	14	D	3	S.C.	Pickens	727	SCS	--	U	195	67	35	2	58	31	74	--	--	--
Hayesville fine sandy clay loam	14	E	3	S.C.	Pickens	727	SCS	--	M	195	67	35	2	64	32	81	--	--	--
Hayesville fine sandy clay loam	14	E	3	Ga.	White	P-64	FS	SE	M	209	60	35	2	55	36	75	77	--	--
Hayesville loam	13	F	1	S.C.	Pickens	715	SCS	--	M	195	67	35	1	54	46	56			
Hayesville loam	13	F	1	S.C.	Oconee	737	SCS	--	L	203	60	32	1	82	59	80			
Hiwassee fine sandy loam	15	D	2	Ga.	Habersham	7P-26	FS	S	T	214	59	32	5	72	37	86			
Hiwassee fine sandy loam	15	D	1	Ga.	Habersham	7P-26	FS	NE	T	214	59	32	5	60	32	82	84	--	--
Hiwassee loam	26	C	2	Ga.	Rabun	L&M 58	FS	SE	M	191	71	36	1	58	32	80			
Hiwassee loam	26	C	2	Ga.	Rabun	L&M 59	FS	SE	M	191	71	36	1	80	36	87			
Hiwassee loam	26	E	2	Ga.	White	UG 1	UG	NE	L	209	60	32	5	68	34	81	83	--	--
Hiwassee clay loam	27	D	3	Ga.	White	P-64	FS	SE	M	209	60	32	2	60	31	82	82	--	--
Linker fine sandy loam	80	C	1	Ga.	Dade	1015	SCS	S	M	201	54	27	6	55	33	69			
Linker fine sandy loam	80	C	2	Ga.	Dade	191	SCS	S	U	201	54	27	6	52	35	63			
Linker fine sandy loam	80	D	2	Ga.	Walker	189	SCS	S	U	213	54	29	6	51	31	67	66	--	--
Montevallo silt loam	83	B	2	Ga.	Walker	L&M 104	FS	SE	M	213	54	29	1	70	50	70	70	--	--
Muskingum gravelly fine sandy loam	85	--	--	Ga.	Walker	L&M 9	FS	NW	--	213	54	29	2	64	65	58			
Muskingum gravelly fine sandy loam	85	D	1	Ga.	Dade	186	SCS	N	U	201	54	27	3	61	40	67			
Muskingum gravelly fine sandy loam	85	F	1	Ga.	Catoosa	1003	SCS	N	U	202	54	28	6	55	39	62	62	--	--
Portera-Ashe stony loam	18	D	1	Ga.	Rabun	L&M 33	FS	--	U	191	71	36	1	55	35	68			
Porters-Ashe stony loam	18	D	1	Ga.	Rabun	L&M 38	FS	--	U	191	71	36	1	80	70	70			
Porters-Ashe stony loam	18	E	1	Ga.	Lumpkin	L&M 17	FS	NE	M	205	61	31	1	57	36	75			
Portera-Ashe stony loam	18	E	1	Ga.	Lumpkin	L&M 22	FS	NE	M	205	61	31	1	57	36	75	72	3.55	4.93
Rabun loam	19	E	1	Ga.	Dawson	L&M 21	FS	NW	--	201	59	32	1	54	44	57			
Rabun loam	19	E	2	Ga.	Lumpkin	L&M 22	FS	SW	M	205	61	31	1	88	41	95			
Rabun loam	19	E	2	Ga.	Lumpkin	L&M 30	FS	SW	M	205	61	31	1	48	33	64			
Rabun loam	19	E	2	Ga.	Gilmer	L&M 79	FS	NE	M	194	65	33	4	38	25	66	71	16.17	22.77
Rabun stony clay loam	142	E	2	Ga.	Gilmer	L&M 65	FS	NE	U	194	65	33	4	63	39	75	75		
Talladega fine sandy loam	6	D	1	S.C.	Oconee	O-10	SCS	--	U	203	60	32	2	52	48	55			
Talladega fine sandy loam	6	E	1	Ga.	Pickens	L&M 81	FS	NE	U	213	59	29	3	63	31	85	70		
Talladega stony loam	146	E	1	Ga.	Gilmer	L&M 121	FS	NE	M	194	65	33	4	71	32	90	90		
Tellico fine sandy loam	104	E	2	Ga.	Catoosa	1004	SCS	S	U	202	54	28	2	48	21	87	87		

MR81-4-976-60986

APPENDIX D TABLE 3 - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE LIMESTONE VALLEY & MOUNTAIN RESOURCE AREA OF GEORGIA, VIRGINIA PINE

SOIL TYPE 1	SOIL NO. 2	SLOPE CLASS 3	EROSION CLASS 4	PLOT IDENTIFICATION				ASPECT 9	PLOT POSITION 10	FROST FREE DAYS 11	AVERAGE PRECIPITATION		NO. OF TREES MEASURED 14	AVG. HT. OF TREES IN PLOT 15	AVG. AGE OF TREES IN PLOT 16	SITE INDEX 17	AVG. SITE INDEX ALL PLOTS 18	STANDARD DEVIATION 19	VARIATION COEFFICIENT 20
				STATE 5	COUNTY 6	NUMBER 7	SOURCE 8				ANNUAL 12	GROWING SEASON 13							
Tellico fine sandy clay loam	105	E	4	Ga.	Catoosa	1009	SCS	S	U	202	54	28	6	51	21	90	90		
Tusquitee loam	22	B	1	Ga.	Dawson	L&M 14	FS	--	--	201	59	31	1	84	55	78			
Tusquitee loam	22	B	1	Ga.	Dawson	L&M 21	FS	--	U	201	59	31	1	84	55	78			
Tusquitee loam	22	C	1	S.C.	Pickens	709	SCS	--	U	195	67	35	1	85	40	93			
Tusquitee loam	22	D	1	Ga.	Lumpkin	L&M 18	FS	NE	M	205	61	31	1	43	20	80			
Tusquitee loam	22	D	1	Ga.	Rabun	L&M 53	FS	SW	U	191	71	36	1	63	35	78			
Tusquitee loam	22	D	1	Ga.	Rabun	L&M 55	FS	SE	U	191	71	36	1	65	36	80			
Tusquitee loam	22	D	1	Ga.	Rabun	L&M 56	FS	SE	U	191	71	36	1	62	33	75			
Tusquitee loam	22	D	1	Ga.	White	6P-150	FS	SE	AF	209	60	32	5	63	34	83			
Tusquitee loam	22	E	1	Ga.	White	5P-186	FS	NE	AF	209	60	32	5	80	39	76	80	5.37	6.71
Tusquitee stony loam	151	D	1	Ga.	White	6P- 62	FS	SW	AF	209	60	32	5	61	36	79			
Tusquitee stony loam	151	D	1	Ga.	Habersham	7P- 26	FS	NW	AF	214	59	32	5	74	36	92	86		
Watauga loam	160	E	1	Ga.	Habersham	6P-150	FS	NW	U	214	59	32	5	46	34	60			
Watauga loam	160	F	1	Ga.	Habersham	6P-150	FS	NW	U	214	59	32	5	55	32	75	68		

MR81-476-61-166

APPENDIX D TABLE 4 - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE LIMESTONE VALLEY & MOUNTAIN RESOURCE AREA OF GEORGIA, WHITE PINE

SOIL TYPE 1/	SOIL NO.	SLOPE CLASS	EROSION CLASS	PLOT IDENTIFICATION				ASPECT	PLOT POSITION	FROST FREE DAYS	AVERAGE PRECIPITATION		NO. OF TREES MEASURED	AVG. HT. OF TREES IN PLOT	AVG. AGE OF TREES IN PLOT	SITE INDEX	AVG. SITE INDEX ALL PLOTS	STANDARD DEVIATION	VARIATION COEFFICIENT
				STATE	COUNTY	NUMBER	SOURCE				ANNUAL	GROWING SEASON							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Alluvial land *	448	B	1	S.C.	Oconee	0-3	SCS	--	L	203	60	32	2	124	57	116			
Alluvial land	448	C	1	S.C.	Oconee	0-8	SCS	--	L	203	60	32	1	104	47	108	112	--	--
Braddock fine sandy loam	9	F	1	Ga.	White	5P-182	FS	SE	AF	209	60	32	5	81	40	92	92	--	--
Clifton stony loam	158	F	1	Ga.	Habersham	6P-152	FS	NW	M	214	59	32	5	64	48	67	67	--	--
Fannin loam	134	D	1	Ga.	Rabun	L&M 43	FS	SE	U	191	71	36	1	74	37	100			
Fannin loam	134	D	1	Ga.	Rabun	L&M 44	FS	SE	U	191	71	36	1	74	38	91			
Fannin loam	134	D	1	Ga.	Rabun	L&M 45	FS	SE	U	191	71	36	1	74	40	90	94	--	--
Fannin clay loam	135	E	3	Ga.	Rabun	L&M 37	FS	SW	L	191	71	36	1	110	68	100	100	--	--
Habersham fine sandy loam	10	C	1	Ga.	Rabun	L&M 39	FS	NE	U	191	71	36	1	45	25	80			
Habersham fine sandy loam	10	C	1	Ga.	Habersham	L&M 54	FS	SW	U	214	59	32	1	81	40	100			
Habersham fine sandy loam	10	C	1	Ga.	Habersham	L&M 57	FS	SW	U	214	59	32	1	70	35	100			
Habersham fine sandy loam	10	D	1	Ga.	Habersham	L&M 47	FS	SW	L	214	59	32	1	86	41	100			
Habersham fine sandy loam	10	D	1	Ga.	Habersham	L&M 52	FS	SW	L	214	59	32	1	115	60	100	96	8.94	9.31
Habersham stony fine sandy loam	11	D	1	Ga.	Habersham	L&M 40	FS	SW	M	214	59	32	1	65	33	90			
Habersham stony fine sandy loam	11	E	1	Ga.	Habersham	L&M 15	FS	SE	L	214	59	32	4	88	43	101			
Habersham stony fine sandy loam	11	E	1	Ga.	Rabun	L&M 41	FS	SW	M	191	71	36	1	60	32	90			
Habersham stony fine sandy loam	11	E	1	Ga.	Rabun	L&M 42	FS	SE	M	191	71	36	1	105	60	95			
Habersham stony fine sandy loam	11	E	1	Ga.	Rabun	L&M 60	FS	SE	M	191	71	36	1	100	51	100	95	5.26	5.54
Halewood fine sandy loam	12	F	1	Ga.	White	9P-12	FS	NW	U	209	60	32	5	85	42	93			
Halewood fine sandy loam	12	F	1	S.C.	Pickens	726	SCS	--	L	195	67	35	2	92	37	121			
Halewood fine sandy loam	12	F	1	Ga.	White	9P-14	FS	--	--	209	60	32	5	--	--	92	102	--	--
Hayesville fine sandy loam	13	E	1	Ga.	Rabun	L&M 48	FS	NE	M	191	71	36	1	78	38	92			
Hayesville fine sandy loam	13	E	1	Ga.	Rabun	L&M 49	FS	NE	M	191	71	36	1	59	31	95			
Hayesville fine sandy loam	13	E	1	Ga.	Rabun	L&M 51	FS	NE	M	191	71	36	1	100	47	100			
Hayesville fine sandy loam	13	E	2	Ga.	Rabun	L&M 36	FS	NW	M	191	71	36	1	70	38	90			
Hayesville fine sandy loam	13	E	2	Ga.	Rabun	L&M 50	FS	NW	M	191	71	36	1	73	40	90			
Hayesville fine sandy loam	13	E	2	S.C.	Oconee	736	SCS	--	L	203	60	32	3	82	36	109			
Hayesville fine sandy loam	13	F	1	S.C.	Oconee	737	SCS	--	M	203	60	32	1	94	47	99	96	6.85	7.14
Hiawassee loam	26	C	2	Ga.	Rabun	L&M 58	FS	SE	M	191	71	36	1	87	45	90			
Hiawassee loam	26	C	2	Ga.	Rabun	L&M 59	FS	SE	M	191	71	36	1	88	40	105	98	--	--
Porters sandy loam	141	E	2	Ga.	White	UG 2	UG	NW	U	209	60	32	3	85	44	94	94	--	--
Porters-Ashe stony loam	18	D	1	Ga.	Rabun	L&M 33	FS	--	U	191	71	36	1	75	33	105			
Porters-Ashe stony loam	18	D	1	Ga.	Rabun	L&M 38	FS	--	U	191	71	36	1	100	70	80			
Porters-Ashe stony loam	18	E	1	Ga.	Lumpkin	L&M 16	FS	NE	L	205	61	31	5	104	56	100			
Porters-Ashe stony loam	18	E	1	Ga.	Lumpkin	L&M 17	FS	NE	M	205	61	31	1	67	32	100	96	11.09	11.55
Porters-Ranger loam	140	E	1	Ga.	Fannin	L&M 122	FS	NE	U	196	60	30	5	102	60	92	92	--	--
Rabun loam	19	F	1	Ga.	Gilmer	L&M 66	FS	NE	M	194	65	33	6	102	58	95			
Rabun loam	19	F	1	Ga.	Gilmer	L&M 67	FS	NE	M	194	65	33	4	72	37	90			
Rabun loam	19	F	1	Ga.	Gilmer	L&M 82	FS	NE	L	194	65	33	4	84	42	100	95	--	--
Talladega stony loam	146	E	1	Ga.	Gilmer	L&M 123	FS	NE	M	194	65	33	5	93	46	100	100	--	--
Tusquitee stony loam	151	D	1	Ga.	White	6P-62	FS	SW	AF	209	60	32	5	73	39	83	83	--	--
Tusquitee loam	22	D	1	Ga.	Lumpkin	L&M 18	FS	NE	M	205	61	31	1	55	28	100			
Tusquitee loam	22	D	1	Ga.	Dawson	L&M 19	FS	NE	M	201	59	31	3	103	46	109			
Tusquitee loam	22	D	1	Ga.	Rabun	L&M 53	FS	SW	U	191	71	36	1	65	33	91			
Tusquitee loam	22	D	1	Ga.	Rabun	L&M 55	FS	SE	U	191	71	36	1	73	40	90			
Tusquitee loam	22	D	1	Ga.	Rabun	L&M 56	FS	SE	U	191	71	36	1	70	30	110			
Tusquitee loam	22	D	1	Ga.	Dawson	L&M 118	FS	NE	--	201	59	31	1	55	26	90			
Tusquitee loam	22	E	1	Ga.	White	5P-186	FS	NE	AF	209	60	32	5	102	58	96			
Tusquitee loam	22	F	1	Ga.	White	9P- 16	FS	NW	AF	209	60	32	5	98	61	88			
Tusquitee loam	22	F	1	Ga.	White	9P- 14	FS	SW	AF	209	60	32	5	78	44	85	95	9.09	9.57

1/ For explanation of headings and columns see footnote at end of Appendix D.

* Tentative soil name.

MR61-976-63986

APPENDIX D TABLE 5 - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE PIEDMONT RESOURCE AREA OF GEORGIA, LOBLOLLY PINE

SOIL TYPE 1/	SOIL NO.	SLOPE CLASS	EROSION CLASS	PLOT IDENTIFICATION				ASPECT	PLOT POSITION	FROST FREE DAYS	AVERAGE PRECIPITATION		NO. OF TREES MEASURED	AVG. HT. OF TREES IN PLOT	AVG. AGE OF TREES IN PLOT	SITE INDEX	AVG. SITE INDEX ALL PLOTS	STANDARD DEVIATION	VARIATION COEFFICIENT
				STATE	COUNTY	NUMBER	SOURCE				ANNUAL	GROWING SEASON							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Alluvial land, mod. well drained*	448	A	1	S.C.	McCormick	573	SCS	--	--	222	43	22	2	91	36	105			
Alluvisl land, mod. well drained	448	A	1	S.C.	Greenwood	689	SCS	--	--	230	48	24	2	75	34	88			
Alluvial land, mod. well drsined	448	A	1	S.C.	Greenwood	704	SCS	--	--	230	48	24	1	81	32	100	93	±9	9
Alluvial lsnd, mod. well drained	448	B	1	S.C.	Edgefield	335	SCS	--	Mid	242	44	24	3	70	34	84			
Alluvial land, mod. well drained	448	B	1	S.C.	Edgefield	333	SCS	--	Low	242	44	24	1	80	39	90			
Appling sandy loam	407	B	2	Ga.	Spalding	6-A7	SCS	SE	Mid	226	49	24	4	65	28	88			
Appling sandy loam	407	B	2	Ga.	Spalding	7-A7	SCS	NE	Mid	226	49	24	3	54	21	87			
Appling sandy loam	407	B	2	Gs.	Morgan	112-A7	SCS	NE	Mid	215	49	24	3	67	36	78	83	±4	5
Appling sandy loam	407	B	2	Ga.	Putnam	FSM-24	FS	--	--	217	47	24	4	60	29	79			
Appling sandy loam	407	C	2	Ga.	Putnam	FSM-22	FS	--	--	217	47	24	4	60	27	82			
Appling sandy losm	407	C	2	Gs.	Putnam	FSM-23	FS	--	--	217	47	24	5	82	44	86			
Appling loamy coarse sand	472	D	2	Ga.	Greene	124-A7	SCS	NE	Upper	219	48	25	3	76	49	77	77	--	--
Appling loamy coarse sand, thick surface	501	B	2	Ga.	Clarke	P-7	SCS	NW	Upper	217	50	25	3	69	30	88			
Appling loamy coarse sand, thick surface	501	B	2	Ga.	Clarke	P-16	SCS	SW	Upper	217	50	25	3	65	29	85	84	--	--
Appling loamy coarse sand, thick surface	501	B	2	Ga.	Clarke	P-17	SCS	SW	Upper	217	50	25	3	63	32	79	--	--	--
Cecil sandy loam	410	B	1	Ga.	Clarke	P-5	SCS	NE	Mid	217	50	25	3	87	91	75			
Cecil sandy loam	410	B	1	Ga.	Clsrke	P-8	SCS	NE	Mid	217	50	25	3	90	91	78			
Cecil sandy loam	410	B	1	Ga.	Putnam	FSM-17	FS	--	--	217	47	24	4	68	28	92			
Cecil sandy loam	410	B	1	Ga.	Jones	FSM-12	FS	W	Upper	230	47	24	5	60	22	95			
Cecil sandy loam	410	B	1	S.C.	Greenwood	689	SCS	--	Upper	230	48	24	2	63	34	76			
Cecil sandy losm	410	B	1	S.C.	Greenwood	24-1	SCS	--	Lower	230	48	24	4	91	48	92			
Cecil sandy loam	410	B	2	Ga.	Putnam	FSM-16	FS	--	--	217	47	24	4	52	22	82			
Cecil sandy loam	410	B	2	Ga.	Jones	FSM-20	FS	W	Upper	230	47	24	6	46	20	80			
Cecil sandy loam	410	B	2	Ga.	Hancock	33-A7	SCS	NE	Upper	220	47	24	4	66	35	77			
Cecil sandy loam	410	B	2	Ga.	Clarke	P-27	SCS	NE	Lower	217	50	25	3	60	22	85			
Cecil sandy loam	410	B	2	Ga.	Elbert	35-A5	SCS	SW	Upper	211	51	25	5	54	28	73	82	±7	8
Cecil sandy losm	410	B	2	Ga.	Clarke	P-19	SCS	SW	Upper	217	50	25	3	69	31	88			
Cecil sandy loam	410	B	2	Ga.	Clarke	P-26	SCS	SW	Upper	217	50	25	3	61	24	90			
Cecil sandy loam	410	B	2	S.C.	Greenwood	690	SCS	--	Upper	230	48	24	2	59	33	72			
Cecil sandy loam	410	B	2	S.C.	Greenwood	24-1a	SCS	--	Lower	230	48	24	4	91	48	92			
Cecil sandy loam	410	C	1	S.C.	McCormick	571	SCS	--	Upper	222	43	22	1	98	68	89			
Cecil sandy loam	410	C	2	Ga.	Jones	FSM-60	FS	NE	Upper	230	47	24	6	51	25	73			
Cecil sandy loam	410	C	2	Ga.	Putnam	2-A7	SCS	SW	Mid	217	47	24	2	63	34	75			
Cecil sandy loam	410	C	2	Ga.	Clarke	P-18	SCS	SW	Mid	217	50	25	3	63	32	78			
Cecil sandy loam	410	C	2	S.C.	Edgefield	19-1	SCS	--	Mid	242	44	24	3	75	52	75			
Cecil sandy loam	410	C	2	S.C.	Abbeville	589	SCS	--	Mid	221	48	22	1	65	41	71			
Cecil sandy loam	410	D	2	S.C.	McCormick	690	SCS	--	Mid	222	43	22	1	66	33	81			
Cecil sandy loam	410	E	2	S.C.	Edgefield	333	SCS	--	Mid	242	44	24	2	76	39	84			
Cecil sandy loam	410	E	2	Gs.	Jones	FSM-28	FS	NE	Upper	230	47	24	7	63	27	88			
Cecil sandy clay loam	411	B	3	Ga.	Clarke	P-12	SCS	SW	Upper	217	50	25	3	52	32	64			
Cecil sandy clay losm	411	B	3	Ga.	Clarke	P-13	SCS	SE	Upper	217	50	25	3	60	32	76			
Cecil sandy clay loam	411	B	3	Ga.	Clarke	P-14	SCS	SE	Upper	217	50	25	3	62	31	78			
Cecil ssndy clay loam	411	B	3	S.C.	Abbeville	590	SCS	--	Upper	221	48	26	2	59	32	74			
Cecil sandy clay loam	411	B	3	S.C.	McCormick	576	SCS	--	Upper	222	43	22	1	55	34	66			
Cecil sandy clay loam	411	B	4	Ga.	Clarke	P-4	SCS	NW	Mid	217	50	25	3	46	22	70			
Cecil sandy clay loam	411	B	4	Ga.	Clarke	P-11	SCS	NE	Lower	217	50	25	3	64	30	80			
Cecil sandy clay loam	411	C	3	Ga.	Elbert	34-A5	SCS	SW	Upper	211	51	25	5	56	28	75			
Cecil sandy clay loam	411	C	3	Ga.	Clarke	P-1	SCS	NE	Mid	217	50	25	2	55	24	83			
Cecil sandy clay loam	411	C	3	Ga.	Wilkes	P-41	SCS	NE	Mid	217	48	25	3	58	36	70			
Cecil sandy clay loam	411	C	3	Ga.	Jones	FSM-51	FS	W	Lower	230	47	24	6	67	57	64			

1/ For explanation of headings and columns see footnote at end of Appendix D.

* Tentative soil name.

MRS-1-476-65X86

APPENDIX D TABLE 5 – SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE PIEDMONT RESOURCE AREA OF GEORGIA, LOBLOLLY PINE

SOIL TYPE 1	SOIL NO. 2	SLOPE CLASS 3	EROSION CLASS 4	PLOT IDENTIFICATION				ASPECT 9	PLOT POSITION 10	FROST FREE DAYS 11	AVERAGE PRECIPITATION		NO. OF TREES MEASURED 14	AVG. HT. OF TREES IN PLOT 15	AVG. AGE OF TREES IN PLOT 16	SITE INDEX 17	AVG. SITE INDEX ALL PLOTS 18	STANDARD DEVIATION 19	VARIATION COEFFICIENT 20
				STATE 5	COUNTY 6	NUMBER 7	SOURCE 8				ANNUAL 12	GROWING SEASON 13							
Cecil sandy clay loam (Cont.)	411	C	3	Ga.	Greene	12A	UG	NE	Mid	219	48	25	3	48	22	77	74	±1	1
Cecil sandy clay loam	411	C	3	Ga.	Greene	2B	UG	NW	Mid	219	48	25	3	45	18	80			
Cecil sandy clay loam	411	C	4	Ga.	Greene	6A	UG	NW	Mid	219	48	25	4	52	24	78			
Cecil sandy clay loam	411	C	4	Ga.	Wilkes	P-44	SCS	SE	Mid	217	48	25	3	54	35	63			
Cecil sandy clay loam	411	D	3	S.C.	Greenwood	697	SCS	--	Upper	230	48	24	1	72	43	76			
Cecil sandy clay loam	411	D	3	S.C.	Greenwood	697	SCS	--	Mid	230	48	24	2	69	42	73			
Cecil sandy clay loam	411	D	3	S.C.	Greenwood	698	SCS	--	Mid	230	48	24	2	66	36	73			
Cecil sandy clay loam	411	D	3	S.C.	Edgefield	19-2	BCS	--	Lower	242	44	24	5	82	55	80			
Cecil sandy clay loam	411	D	4	Ga.	Clarke	P-20	SCS	NE	Mid	217	50	25	3	62	33	75			
Cecil sandy clay loam	411	D	4	Ga.	Clarke	P-21	SCS	NE	Mid	217	50	25	3	59	31	75			
Cecil sandy clay loam	411	D	4	Ga.	Clarke	P-22	SCS	NE	Lower	217	50	25	3	53	34	64			
Cecil sandy clay loam	411	E	3	Ga.	Clarke	P-1	SCS	NE	Mid	217	50	25	2	53	26	75			
Cecil sandy clay loam	411	E	3	S.C.	Abbeville	584	SCS	--	Mid	221	48	26	3	69	36	79			
Cecil sandy clay loam	411	E	3	S.C.	McCormick	583	SCS	--	Mid	222	43	22	1	75	42	80			
Cecil sandy clay loam	411	E	4	Ga.	Jones	FSM-71	FS	NW	Upper	230	47	24	5	50	27	68			
Cecil coarse sandy loam	496	B	2	Ga.	Greene	123-A7	SCS	SW	Upper	219	48	25	3	48	26	68	68		
Cecil loamy coarse sand	506	C	2	Ga.	Greene	120-A7	SCS	NE	Upper	219	48	25	3	49	31	63	63		
Chewacla silt loam	401	A	1	Ga.	Gilmer	L&M 78	FS	--	Lower	194	64	32	2	81	32	100	100		
Colfax sandy loam	412	B	2	S.C.	Anderson	680	SCS	--	Lower	229	49	24	3	74	49	75	75		
Congaree fine sandy loam	470	A	1	S.C.	Greenwood	702	SCS	--	Lower	230	48	24	2	119	63	110	110		
Davidson loam	415	B	1	Ga.	Clarke	P-6	SCS	NE	Upper	217	50	25	3	85	58	78			
Davidson loam	415	B	1	Ga.	Clarke	P-23	SCS	NE	Upper	217	50	25	3	80	55	78			
Davidson loam	415	B	1	S.C.	Greenwood	694	SCS	--	Mid	230	50	24	2	60	30	77			
Davidson loam	415	B	1	S.C.	McCormick	575	BCS	--	Upper	222	43	22	4	64	36	74			
Davidson loam	415	B	1	Ga.	Putnam	4-A7	SCS	SE	Upper	217	47	24	2	66	30	87			
Davidson loam	415	B	2	Ga.	Jones	FSM-68	FS	--	--	230	47	24	5	57	30	79	80	±5	6
Davidson loam	415	C	2	Ga.	Morgan	91-A7	SCS	NE	Mid	215	49	24	5	77	36	90			
Davidson loam	415	C	2	Ga.	Putnam	108-A7	SCS	NE	Lower	217	47	24	4	61	32	76			
Davidson loam	415	C	2	Ga.	Morgan	110-A7	SCS	NW	Upper	215	49	24	3	65	30	84			
Davidson loam	415	C	2	Ga.	Jones	FSM-68	FS	SE	Upper	230	47	24	4	57	27	76			
Davidson clay loam	416	B	3	Ga.	Putnam	99-A7	SCS	SW	Mid	217	47	24	4	70	35	82			
Davidson clay loam	416	B	3	Ga.	Morgan	111-A7	SCS	SE	Upper	215	49	24	3	60	32	75			
Davidson clay loam	416	C	3	Ga.	Putnam	98-A7	SCS	SE	Upper	217	47	24	4	58	28	80	77	±5	7
Davidson clay loam	416	C	3	Ga.	Clarke	P--	SCS	NE	Mid	217	50	25	3	52	26	75			
Davidson clay loam	416	E	3	S.C.	McCormick	573	SCS	--	Mid	222	43	22	2	72	35	85			
Davidson clay loam	416	E	3	S.C.	McCormick	573	SCS	--	Upper	222	43	22	1	60	36	70			
Efland loam	476	C	2	Ga.	Hancock	29-A7	SCS	SW	Lower	220	47	24	4	57	33	70			
Efland loam	476	C	2	Ga.	Jones	FSM-52	FS	E	Gullied	230	47	24	8	63	33	77			
Efland loam	476	C	4	Ga.	Jones	FSM-25	FB	S	Upper	230	47	24	5	74	52	72			
Efland loam	476	C	4	Ga.	Jones	FSM-34	FS	NE	Upper	230	47	24	7	45	27	62			
Efland loam	476	D	4	Ga.	Jones	FSM-38	FS	SW	Upper	230	47	24	6	52	26	75	68	±6	8
Efland loam	476	D	4	Ga.	Jones	FSM-46	FS	SW	Lower	230	47	24	6	60	49	60			
Efland loam	476	D	4	Ga.	Jones	FSM-57	FS	SE	Upper	230	47	24	5	65	46	68			
Efland loam	476	E	3	Ga.	Jones	FSM-35	FS	S	Lower	230	47	24	7	45	27	62			
Enon sandy loam	475	B	1	Ga.	Elbert	P-33	SCB	NE	Upper	211	51	25	3	49	27	64			
Enon sandy loam	475	B	1	Ga.	Elbert	P-34	SCS	NE	Mid	211	51	25	3	60	46	63	65	±6	9
Enon sandy loam	475	B	3	Ga.	Elbert	P-36	SCS	SW	Mid	211	51	25	3	50	33	60			
Enon sandy loam	475	C	2	S.C.	Greenwood	691	SCB	--	Lower	230	48	24	2	76	55	73			
Georgeville silty clay loam	403	C	3	S.C.	McCormick	570	BCS	--	Mid	222	43	22	3	63	38	71	71	--	--

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APPENDIX D TABLE 5 - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE PIEDMONT RESOURCE AREA OF GEORGIA, LOBLOLLY PINE

SOIL TYPE 1	SOIL NO. 2	SLOPE CLASS 3	EROSION CLASS 4	PLOT IDENTIFICATION				ASPECT 9	PLOT POSITION 10	FROST FREE DAYS 11	AVERAGE PRECIPITATION		NO. OF TREES MEASURED 14	AVG. HT. OF TREES IN PLOT 15	AVG. AGE OF TREES IN PLOT 16	SITE INDEX 17	AVG. SITE INDEX ALL PLOTS 18	STANDARD DEVIATION 19	VARIATION COEFFICIENT 20
				STATE 5	COUNTY 6	NUMBER 7	SOURCE 8				ANNUAL 12	GROWING SEASON 13							
Goldston silty clay loam	404	E	3	S.C.	Edgefield	19-1	SCS	--	Upper	242	44	24	4	68	51	68	68	--	--
Helena sandy loam	420	B	1	Ga.	Spalding	L&M 83	FS	SW	Mid	226	49	24	3	62	46	65			
Helena sandy loam	420	C	2	Ga.	Jones	FSM-49	FS	W	Upper	230	47	24	4	70	50	70	68	--	--
Helena sandy loam	420	D	2	Ga.	Jones	FSM- 6	FS	S	Upper	230	47	24	3	63	41	68			
Helena sandy clay loam	481	B	3	Ga.	Spalding	L&M 88	FS	SW	Mid	226	49	24	4	64	40	71			
Helena sandy clay loam	481	C	3	Ga.	Spalding	L&M 84	FS	SW	Lower	226	49	24	5	78	49	76	69	--	--
Helena sandy clay loam	481	D	4	Ga.	Jones	FSM-72	FS	S	Lower	230	47	24	6	47	30	60			
Iredell fine sandy loam	465	B	1	Ga.	Elbert	84-A5	SCS	SW	Lower	211	51	25	4	51	26	73	73	--	--
Iredell fine sandy loam	465	B	1	Ga.	Elbert	86-A5	SCS	NE	Mid	211	51	25	3	59	33	73			
Iredell loam	482	A	1	Ga.	Elbert	P-37	SCS	SW	Upper	211	51	25	3	54	40	60			
Iredell loam	482	A	1	Ga.	Jones	FSM-3	FS	--	--	230	47	24	5	55	38	67			
Iredell loam	482	A	1	Ga.	Jones	FSM-15	FS	--	--	230	47	24	5	66	48	70	66	±4	6
Iredell loam	482	A	1	Ga.	Jones	FSM-4	FS	--	--	230	47	24	5	54	36	65			
Lloyd sandy loam	422	A	2	S.C.	Greenwood	693	SCS	--	Upper	230	48	24	2	59	33	71			
Lloyd sandy loam	422	B	1	Ga.	Greene	FSM-6	FS	--	--	219	48	25	5	55	23	65			
Lloyd sandy loam	422	B	2	Ga.	Greene	FSM-7	FS	--	--	219	48	25	5	51	25	72			
Lloyd sandy loam	422	B	1	Ga.	Putnam	FSM-21	FS	--	--	217	47	24	4	58	24	86			
Lloyd sandy loam	422	B	2	S.C.	Greenwood	705	SCS	--	Mid	230	48	24	3	56	37	75			
Lloyd sandy loam	422	C	2	Ga.	Jones	FSM-63	FS	SW	Upper	230	47	24	6	58	28	80			
Lloyd sandy loam	422	C	2	Ga.	Jones	FSM-37	FS	SE	Upper	230	47	24	6	57	25	83			
Lloyd sandy loam	422	C	2	Ga.	Morgan	104-A7	SCS	SE	Mid	215	49	24	4	61	34	73			
Lloyd sandy loam	422	C	2	Ga.	Putnam	FSM-20	FS	--	--	217	47	24	5	75	49	78			
Lloyd sandy loam	422	C	2	Ga.	Jones	FSM-10	FS	NE	Upper	230	47	24	5	87	54	84			
Lloyd sandy loam	422	C	2	Ga.	Jones	FSM-11	FS	NW	Lower	230	47	24	5	79	41	86	80	±6	7
Lloyd sandy loam	422	C	2	S.C.	Greenwood	703	SCS	--	Mid	230	48	24	2	62	34	73			
Lloyd sandy loam	422	D	2	Ga.	Jones	FSM-9	FS	NE	Lower	230	47	24	6	90	48	90			
Lloyd sandy loam	422	D	2	Ga.	Jones	FSM-40	FS	SE	Upper	230	47	24	6	61	28	80			
Lloyd sandy loam	422	B	2	Ga.	Putnam	3-A7	SCS	SE	Mid	217	47	24	3	68	28	90			
Lloyd sandy loam	422	B	2	Ga.	Morgan	109-A7	SCS	NE	Upper	215	49	24	3	63	37	73			
Lloyd sandy loam	422	B	2	Ga.	Morgan	50-A7	SCS	NW	Mid	215	49	24	4	74	41	80			
Lloyd clay loam	423	B	3	Ga.	Jones	FSM-33	FS	SW	Upper	230	47	24	5	50	26	72			
Lloyd clay loam	423	B	3	Ga.	Jones	FSM-3	FS	SW	Upper	230	47	24	5	61	41	65			
Lloyd clay loam	423	B	3	Ga.	Jones	FSM-2	FS	--	--	230	47	24	4	65	29	85			
Lloyd clay loam	423	C	3	Ga.	Putnam	1-A7	SCS	SW	Mid	217	47	24	3	62	34	74			
Lloyd clay loam	423	C	3	Ga.	Morgan	102-A7	SCS	SE	Mid	215	49	24	3	66	35	78			
Lloyd clay loam	423	C	3	Ga.	Jones	FSM-1	FS	--	--	230	47	24	4	65	33	80			
Lloyd clay loam	423	C	3	Ga.	Jones	FSM-5	FS	NE	Upper	230	47	24	6	70	42	75			
Lloyd clay loam	423	C	3	Ga.	Jones	FSM-16	FS	SW	Upper	230	47	24	5	41	18	72			
Lloyd clay loam	423	C	3	Ga.	Jones	FSM-18	FS	SE	Lower	230	47	24	7	55	27	75	75	±8	10
Lloyd clay loam	423	C	3	Ga.	Jones	FSM-19	FS	SW	Lower	230	47	24	6	48	27	65			
Lloyd clay loam	423	C	3	Ga.	Jones	FSM-24	FS	SW	Upper	230	47	24	7	51	26	72			
Lloyd clay loam	423	C	3	Ga.	Jones	FSM-54	FS	S	Upper	230	47	24	6	63	49	64			
Lloyd clay loam	423	C	3	Ga.	Jones	FSM-62	FS	SW	Upper	230	47	24	5	55	31	70			
Lloyd clay loam	423	C	3	S.C.	Edgefield	19-3	SCS	--	Upper	242	44	24	5	69	43	76			
Lloyd clay loam	423	C	3	S.C.	Abbeville	593	SCS	--	Mid	221	48	26	3	61	32	74			
Lloyd clay loam	423	C	3	S.C.	Greenwood	703	SCS	--	Mid	230	48	24	1	62	32	72			
Lloyd clay loam	423	D	3	Ga.	Jones	FSM-2	FS	NE	Upper	230	47	24	8	58	42	62			
Lloyd clay loam	423	D	3	Ga.	Jones	FSM-59	FS	SE	Upper	230	47	24	4	74	46	77			
Lloyd clay loam	423	D	4	Ga.	Jones	FSM-8	FS	NE	Upper	230	47	24	6	76	52	75			

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APPENDIX D TABLE 5 - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE PIEDMONT RESOURCE AREA OF GEORGIA, LOBLOLLY PINE

SOIL TYPE	SOIL NO.	SLOPE CLASS	EROSION CLASS	PLOT IDENTIFICATION				ASPECT	PLOT POSITION	FROST FREE DAYS	AVERAGE PRECIPITATION		NO. OF TREES MEASURED	AVG. HT. OF TREES IN PLOT	AVG. AGE OF TREES IN PLOT	SITE INDEX	AVG. SITE INDEX ALL PLOTS	STANDARD DEVIATION	VARIATION COEFFICIENT
				STATE	COUNTY	NUMBER	SOURCE				ANNUAL	GROWING SEASON							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Lloyd clay loam (cont.)	423	D	4	Ga.	Jones	FSM-51	FS	NW	Upper	230	47	24	6	57	28	81			
Lloyd clay loam	423	D	4	Ga.	Jones	FSM-67	FS	NW	Lower	230	47	24	5	50	28	67			
Lloyd clay loam	423	E	3	Ga.	Jones	FSM- 1	FS	N	Lower	230	47	24	8	81	43	86			
Lloyd clay loam	423	E	3	Ga.	Jones	FSM-31	FS	SW	Lower	230	47	24	7	63	27	85			
Lloyd clay loam	423	E	4	Ga.	Jones	FSM- 4	FS	--	--	230	47	24	6	76	42	82			
Lloyd clay loam	423	E	4	Ga.	Jones	FSM- 7	FS	Variable	Gullied	230	47	24	6	74	43	79			
Lloyd clay loam	423	E	4	Ga.	Jones	FSM-14	FS	NE	Upper	230	47	24	5	75	41	82			
Lloyd clay loam	423	E	4	Ga.	Jones	FSM-27	FS	NW	Upper	230	47	24	6	56	25	82			
Lloyd loam	424	A	1	S.C.	Greenwood	696	SCS	--	--	230	48	24	2	75	31	95			
Lloyd loam	424	B	1	Ga.	Clarke	P-24	SCS	NE	Upper	217	50	25	3	86	69	77	82	±9	11
Lloyd loam	424	B	1	Ga.	Clarke	P-25	SCS	NE	Upper	217	50	25	3	83	72	74			
Lloyd loam	424	C	2	S.C.	Greenwood	699	SCS	--	Mid	230	48	24	2	73	38	82			
Lloyd fine sandy loam	466	B	1	S.C.	Edgefield	332	SCS	--	Mid	242	44	24	3	65	33	78			
Lloyd fine sandy loam	466	B	2	S.C.	Edgefield	336	SCS	--	Upper	242	44	24	5	76	38	86	79	±6	8
Lloyd fine sandy loam	466	B	2	S.C.	Edgefield	332	SCS	--	Mid	242	44	24	2	65	34	77			
Lloyd fine sandy loam	466	C	2	S.C.	Edgefield	332	SCS	--	Mid	242	44	24	3	61	34	73			
Louisburg stony loamy sand	429	D	2	Ga.	Greene	122-A7	SCS	NW	Upper	219	48	25	3	50	22	78	78		
Louisburg loamy sand & sandy loam	428	D	2	S.C.	Edgefield	334	SCS	--	Upper	242	44	24	3	70	41	75			
Louisburg loamy sand & sandy loam	428	D	2	S.C.	Edgefield	334	SCS	--	Mid	242	44	24	3	74	43	79	75		
Louisburg loamy sand & sandy loam	428	D	4	Ga.	Greene	37	UG	NW	Mid	219	48	25	3	47	23	70			
Mecklenburg sandy loam	483	B	1	Ga.	Elbert	P-34	SCS	SE	Upper	211	51	25	3	44	23	68			
Mecklenburg sandy loam	483	C	2	Ga.	Jones	FSM-21	FS	SE	Upper	230	47	24	5	56	24	82			
Mecklenburg sandy loam	483	C	2	S.C.	McCormick	574	SCS	--	Upper	222	43	22	4	67	33	81	76	±6	8
Mecklenburg sandy loam	483	C	4	Ga.	Jones	FSM-22	FS	SE	Lower	230	47	24	6	76	53	75			
Mecklenburg fine sandy loam	500	C	3	Ga.	Greene	3	UG	SW	Upper	219	48	25	4	54	34	66	66		
Nason fine sandy loam	484	B	2	Ga.	Hancock	32-A7	SCS	NW	Mid	220	47	24	4	57	35	67	69		
Nason fine aandy loam	484	C	2	Ga.	Hancock	31-A7	SCS	SW	Upper	220	47	24	4	59	34	70			
Orange silt loam	486	A	1	S.C.	Greenwood	24-1	SCS	--	Lower	230	48	24	5	60	39	87	82		
Orange silt loam	486	C	2	Ga.	Lincoln	89-A5	SCS	SE	Mid	208	44	23	4	57	47	58			
Starr loam	439	A	1	Ga.	Jones	FSM-44	FS	Flat	Bottom	230	47	24	5	100	45	104	104		
Vance sandy loam	442	B	1	Ga.	Greene	30	UG	NW	Mid	219	48	25	4	60	29	78			
Vance sandy loam	442	B	1	Ga.	Baldwin	13-A7	SCS	NE	Upper	233	47	25	5	58	31	73			
Vance sandy loam	442	B	1	Ga.	Putnam	FSM-18	FS	--	--	217	47	24	4	61	30	80			
Vance sandy loam	442	B	2	S.C.	Abbeville	1-1	SCS	--	Lower	221	48	26	4	--	--	87			
Vance aandy loam	442	C	2	Ga.	Jones	FSM-30	FS	SW	Upper	230	47	24	5	63	30	82			
Vance sandy loam	442	C	2	Ga.	Jones	FSM-55	FS	S	Upper	230	47	24	5	72	59	88			
Vance sandy loam	442	C	2	Ga.	Jones	FSM-64	FS	SE	Upper	230	47	24	6	59	26	80	75	±5	7
Vance sandy loam	442	D	2	Ga.	Jones	FSM-50	FS	NW	Lower	230	47	24	5	67	51	87			
Vance sandy loam	442	D	2	Ga.	Jones	FSM-56	FS	SE	Lower	230	47	24	4	77	54	75			
Vance aandy loam	442	D	2	Ga.	Jones	FSM-58	FS	SE	Lower	230	47	24	6	74	47	76			
Vance sandy loam	442	D	2	Ga.	Greene	42	UG	--	--	219	48	25	3	63	30	80			
Vance sandy clay loam	443	C	3	Ga.	Jones	FSM-45	FS	SW	Upper	230	47	24	5	67	51	87			
Vance sandy clay loam	443	C	3	Ga.	Jones	FSM-66	FS	NE	Upper	230	47	24	6	55	27	76			
Vance sandy clay loam	443	C	4	Ga.	Baldwin	115-A7	SCS	SW	Mid	233	47	25	4	58	38	66	68	±6	9
Vance aandy clay loam	443	D	3	Ga.	Jones	FSM-61	FS	NE	Lower	230	47	24	5	55	27	75			
Vance sandy clay loam	443	D	3	Ga.	Jones	FSM-69	FS	NE	Upper	230	47	24	5	45	28	60			
Vance aandy clay loam	443	D	4	Ga.	Jones	FSM-53	FS	N	Lower	230	47	24	6	63	45	66			
Wickham fine aandy loam	444	C	2	Ga.	Elbert	83-A5	SCS	SE	Upper	211	51	25	4	52	25	75	75		
Wickham clay loam	445	F	3	S.C.	McCormick	582	SCS	--	Upper	222	43	22	1	65	47	67	67		

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APPENDIX D TABLE 5 – SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE PIEDMONT RESOURCE AREA OF GEORGIA, LOBLOLLY PINE

SOIL TYPE	SOIL NO.	SLOPE CLASS	EROSION CLASS	PLOT IDENTIFICATION				ASPECT	PLOT POSITION	FROST FREE DAYS	AVERAGE PRECIPITATION		NO. OF TREES MEASURED	AVG. HT. OF TREES IN PLOT	AVG. AGE OF TREES IN PLOT	SITE INDEX	AVG. SITE INDEX ALL PLOTS	STANDARD DEVIATION	VARIATION COEFFICIENT
				STATE	COUNTY	NUMBER	SOURCE				ANNUAL	GROWING SEASON							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Wilkes sandy loam	446	E	1	Ga.	Jones	FSM-42	FS	NW	Upper	230	47	24	5	93	84	80			
Wilkes sandy loam	446	E	2	Ga.	Jones	FSM-41	FS	SW	Upper	230	47	24	8	58	27	80			
Wilkes sandy loam	446	E	2	Ga.	Jones	FSM-48	FS	W	Upper	230	47	24	6	68	48	68	75	±5	7
Wilkes sandy loam	446	E	2	Ga.	Jones	FSM-13	FS	NE	Upper	230	47	24	6	79	50	79			
Wilkes sandy loam	446	F	2	Ga.	Spalding	L&M-86	FS	SW	Mid	226	49	24	4	69	40	76			
Wilkes sandy loam	446	F	3	Ga.	Jones	FSM-70	FS	NE	Lower	230	47	24	5	52	28	70			

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APPENDIX D TABLE 6 – SOIL–WOODLAND SITE CORRELATION PLOT DATA FOR THE PIEDMONT RESOURCE AREA OF GEORGIA, SHORTLEAF PINE

SOIL TYPE 1/	SOIL NO.	SLOPE CLASS	EROSION CLASS	PLOT IDENTIFICATION				ASPECT	PLOT POSITION	FROST FREE DAYS	AVERAGE PRECIPITATION		NO. OF TREES MEASURED	AVG. HT. OF TREES IN PLOT	AVG. AGE OF TREES IN PLOT	SITE INDEX	AVG. SITE INDEX ALL PLOTS	STANDARD DEVIATION	VARIATION COEFFICIENT
				STATE	COUNTY	NUMBER	SOURCE				ANNUAL	GROWING SEASON							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Alluvial land, mod. well drained*	448	A	1	S.C.	Abbeville	590	SCS	--	Lower	221	48	26	1	65	33	81			
Alluvial land, mod. well drained	448	A	1	S.C.	Oconee	728	SCS	--	Lower	215	54	27	1	71	43	78	78		
Appling sandy loam	407	B	1	S.C.	Anderson	671	SCS	--	Upper	229	49	24	1	--	--	70			
Appling sandy loam	407	B	2	Ga.	Morgan	113-A7	SCS	NE	Mid	215	49	24	4	60	40	68			
Appling sandy loam	407	B	2	S.C.	Edgefield	330	SCS	--	Upper	242	44	24	2	53	41	60	69	±8	9
Appling sandy loam	407	E	3	S.C.	Oconee	FSA-88	FS	SE	Mid	215	54	27	52	59	34	75			
Appling sandy clay loam	408	B	3	Ga.	Morgan	53-A7	SCS	SE	Mid	215	49	24	3	35	21	55	55		
Cecil sandy loam	410	B	1	Ga.	Clarke	P-28	SCS	NE	Mid	217	50	25	3	94	77	77			
Cecil sandy loam	410	B	1	Ga.	Clarke	P-30	SCS	NE	Mid	217	50	25	3	92	105	70			
Cecil sandy loam	410	B	1	Ga.	Clarke	P-31	SCS	SW	Upper	217	50	25	3	87	98	68			
Cecil sandy loam	410	B	1	S.C.	McCormick	572	SCS	--	Upper	222	43	22	3	89	66	77			
Cecil sandy loam	410	B	1	S.C.	Anderson	671	SCS	--	Upper	229	49	24	3	72	70	82			
Cecil sandy loam	410	B	1	S.C.	Anderson	670	SCS	--	Mid	229	49	24	1	70	45	74			
Cecil sandy loam	410	B	2	S.C.	Anderson	670	SCS	--	Upper	229	49	24	1	60	45	63			
Cecil sandy loam	410	B	2	S.C.	Greenwood	690	SCS	--	Upper	230	48	24	1	58	33	72			
Cecil sandy loam	410	B	2	S.C.	Anderson	670	SCS	--	Mid	229	49	24	1	64	45	68			
Cecil sandy loam	410	C	1	S.C.	Oconee	745	SCS	--	Mid	215	54	27	2	71	53	70			
Cecil sandy loam	410	C	1	S.C.	Oconee	747	SCS	--	Mid	215	54	27	2	57	34	71			
Cecil sandy loam	410	C	2	S.C.	Oconee	FSA-85	FS	--	Upper	215	54	27	61	60	40	70			
Cecil sandy loam	410	C	2	S.C.	Oconee	746	SCS	--	Upper	215	54	27	3	60	45	64			
Cecil sandy loam	410	C	2	S.C.	Oconee	728	SCS	--	Mid	215	54	27	3	53	32	69	68	±5	7
Cecil sandy loam	410	C	2	S.C.	Edgefield	19-1	SCS	--	Mid	242	44	24	2	67	44	71			
Cecil sandy loam	410	C	2	S.C.	Anderson	666	SCS	--	Mid	229	49	24	2	71	51	70			
Cecil sandy loam	410	C	2	S.C.	Oconee	748	SCS	--	Mid	215	54	27	3	52	34	64			
Cecil sandy loam	410	C	2	S.C.	Abbeville	589	SCS	--	Mid	221	48	26	1	58	41	64			
Cecil sandy loam	410	C	2	S.C.	Oconee	729	SCS	--	Lower	215	54	27	1	59	48	60			
Cecil sandy loam	410	D	2	S.C.	Oconee	FSA-79	FS	SW	Mid	215	54	27	57	73	60	65			
Cecil sandy loam	410	D	2	S.C.	Oconee	752	SCS	--	Upper	215	54	27	3	62	33	77			
Cecil sandy loam	410	D	2	S.C.	Anderson	667	SCS	--	Mid	229	48	24	2	54	40	60			
Cecil sandy loam	410	D	2	S.C.	Anderson	686	SCS	--	Mid	229	49	24	1	61	43	66			
Cecil sandy loam	410	D	2	S.C.	Anderson	686	SCS	--	Lower	229	49	24	2	57	41	63			
Cecil sandy loam	410	D	2	S.C.	Oconee	729	SCS	--	Lower	215	54	27	1	--	--	67			
Cecil sandy loam	410	D	3	S.C.	Oconee	FSA-80	FS	SW	Upper	215	54	27	55	51	32	65			
Cecil sandy loam	410	D	3	S.C.	Pickens	FSA-36	FS	SE	Upper	215	57	29	30	66	43	72			
Cecil sandy loam	410	E	2	S.C.	Oconee	751	SCS	--	Mid	215	54	27	3	48	33	60			
Cecil sandy loam	410	E	2	S.C.	Oconee	750	SCS	--	Lower	215	54	27	2	69	50	69			
Cecil sandy loam	410	E	2	S.C.	Oconee	751	SCS	--	Lower	215	54	27	1	54	33	69			
Cecil sandy loam	410	D	2	Ga.	Madison	P-47	SCS	SW	Mid	212	52	26	3	65	39	74			
Cecil sandy loam	410	D	2	Ga.	Madison	P-53	SCS	SE	Mid	212	52	26	1	62	40	70			
Cecil sandy loam	410	C	1	Ga.	Franklin	118-A5	SCS	NW	Upper	209	52	26	3	60	43	66			
Cecil sandy loam	410	C	1	S.C.	Pickens	711	SCS	--	Lower	215	57	29	3	62	37	72			
Cecil sandy clay loam	411	B	3	S.C.	Abbeville	590	SCS	--	Upper	221	48	26	3	50	32	62			
Cecil sandy clay loam	411	B	3	S.C.	Greenwood	688	SCS	--	Upper	230	48	24	2	44	32	60			
Cecil sandy clay loam	411	B	4	Ga.	Clarke	P-4	SCS	NW	Mid	217	50	25	3	45	23	70			
Cecil sandy clay loam	411	C	3	S.C.	Oconee	FSA-86	FS	NW	Upper	215	50	27	51	67	55	65			
Cecil sandy clay loam	411	C	3	S.C.	Oconee	FSA-87	FS	SE	Upper	215	54	27	34	72	60	65			
Cecil sandy clay loam	411	C	3	S.C.	Greenwood	697	SCS	--	Mid	230	48	24	2	55	39	64			
Cecil sandy clay loam	411	C	3	Ga.	Wilkes	P-41	SCS	NE	Mid	217	48	25	1	48	30	65			
Cecil sandy clay loam	411	C	3	S.C.	Anderson	684	SCS	--	Upper	229	49	24	2	50	37	60			
Cecil sandy clay loam	411	C	3	S.C.	Anderson	666	SCS	--	Mid	229	49	24	2	59	50	60	66	±5	8

1/ For explanation of headings and columns see footnote at end of Appendix D.

* Tentative soil name.

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APPENDIX D TABLE 6 - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE PIEDMONT RESOURCE AREA OF GEORGIA, SHORTLEAF PINE

SOIL TYPE 1	SOIL NO. 2	SLOPE CLASS 3	EROSION CLASS 4	PLOT IDENTIFICATION				ASPECT 9	PLOT POSITION 10	FROST FREE DAYS 11	AVERAGE PRECIPITATION		NO. OF TREES MEASURED 14	AVG. HT. OF TREES IN PLOT 15	AVG. AGE OF TREES IN PLOT 16	SITE INDEX 17	AVG. SITE INDEX ALL PLOTS 18	STANDARD DEVIATION 19	VARIATION COEFFICIENT 20
				STATE 5	COUNTY 6	NUMBER 7	SOURCE 8				ANNUAL 12	GROWING SEASON 13							
Cecil sandy clay loam (cont.)	411	C	3	S.C.	Anderson	685	SCS	--	Mid	229	49	24	2	53	38	61			
Cecil sandy clay loam	411	C	3	S.C.	Greenwood	697	SCS	--	Mid	230	48	24	2	55	39	64			
Cecil sandy clay loam	411	C	3	S.C.	Anderson	686	SCS	--	Lower	229	49	24	2	54	33	68			
Cecil sandy clay loam	411	C	4	Ga.	Franklin	P-54	SCS	SE	Lower	209	52	26	1	49	34	60			
Cecil sandy clay loam	411	D	3	S.C.	Anderson	672	SCS	--	Mid	229	49	24	2	62	42	68			
Cecil sandy clay loam	411	D	3	S.C.	Oconee	729	SCS	--	Lower	215	54	27	3	72	57	67			
Cecil sandy clay loam	411	D	3	S.C.	Anderson	666	SCS	--	Lower	229	49	24	1	64	49	65			
Cecil sandy clay loam	411	E	3	S.C.	Oconee	749	SCS	--	Upper	215	54	27	2	70	58	65			
Cecil sandy clay loam	411	E	3	S.C.	Anderson	668	SCS	--	Mid	229	49	24	3	61	34	74			
Cecil sandy clay loam	411	E	3	S.C.	Anderson	669	SCS	--	Mid	229	49	24	3	63	39	72			
Cecil sandy clay loam	411	F	3	S.C.	Anderson	669	SCS	--	Lower	229	49	24	2	63	33	79			
Cecil stony sandy loam	413	D	3	S.C.	Pickens	FSA-39	SCS	NW	Mid	215	57	29	38	55	33	70	70	--	--
Cecil loamy coarse sand	506	C	2	S.C.	Greenwood	FSA-60	SCS	--	Lower	230	48	24	35	66	39	75	75	--	--
Chewacla silt loam	401	A	1	Ga.	Gilmer	L&M-70	--	--	Lower	194	64	32	3	88	59	80	80	--	--
Colfax sandy loam	412	B	2	Ga.	Franklin	P-55	SCS	NW	Upper	209	52	26	2	72	52	70			
Colfax sandy loam	412	B	2	S.C.	Abbeville	588	SCS	--	Upper	221	48	26	4	50	32	67			
Colfax sandy loam	412	B	2	S.C.	Anderson	680	SCS	--	Lower	229	49	24	1	73	61	65	66	±4	6
Colfax sandy loam	412	D	3	Ga.	Franklin	P-55	SCS	NW	Upper	209	52	26	1	48	33	60			
Congaree fine sandy loam	470	A	1	S.C.	Oconee	741	SCS	--	Lower	215	54	27	2	98	50	98	98	--	--
Davidson loam	415	B	1	Ga.	Clarke	P-29	SCS	NE	Mid	217	50	25	3	101	92	72			
Davidson loam	415	C	2	Ga.	Clarke	P-11	SCS	NE	Lower	217	50	25	3	53	26	75	73	--	--
Davidson clay loam	416	B	3	S.C.	Abbeville	592	SCS	--	Upper	221	48	26	4	--	--	61			
Davidson clay loam	416	B	4	Ga.	Franklin	P-49	SCS	NW	Upper	--	--	--	3	70	60	70			
Davidson clay loam	416	C	3	Ga.	Putnam	100-A7	SCS	NW	Mid	217	47	24	4	58	35	70			
Davidson clay loam	416	C	3	Ga.	Clarke	P-2	SCS	NE	Mid	217	47	24	3	49	27	69			
Davidson clay loam	416	C	3	Ga.	Clarke	P-3	SCS	NE	Upper	217	47	24	2	50	34	68	67	±4	6
Davidson clay loam	416	D	4	Ga.	Clarke	P-3	SCS	NE	Mid	217	47	24	3	63	38	70			
Davidson clay loam	416	E	3	S.C.	McCormick	573	SCS	--	Mid	222	43	22	3	64	43	70			
Davidson clay loam	416	E	4	Ga.	Clarke	P-10	SCS	NE	Mid	217	50	25	3	64	53	62			
Efland loam	476	C	2	Ga.	Hancock	28-A7	SCS	SW	Lower	220	47	24	3	51	35	62	62	--	--
Enon sandy loam	475	B	1	Ga.	Elbert	P-33	SCS	NE	Mid	211	51	25	2	43	39	48			
Enon sandy loam	475	B	1	Ga.	Elbert	P-35	SCS	NE	Mid	211	51	25	3	54	49	55			
Enon sandy loam	475	B	3	Ga.	Elbert	P-36	SCS	SW	Mid	211	51	25	1	39	35	48	52	±5	11
Enon sandy loam	475	C	2	S.C.	McCormick	335	SCS	--	Lower	242	44	24	3	56	48	57			
Georgeville silty clay loam	403	B	1	S.C.	McCormick	FSA-76	FS	SE	Upper	222	43	22	38	58	58	55			
Georgeville silty clay loam	403	B	2	S.C.	Greenwood	FSA-61	FS	SE	Upper	230	48	24	47	55	42	60	61	±5	8
Georgeville silty clay loam	403	C	2	S.C.	McCormick	FSA-77	FS	SW	Upper	222	43	22	49	60	44	65			
Georgeville silty clay loam	403	C	3	S.C.	Greenwood	FSA-63	FS	NE	Upper	230	48	24	17	67	50	65			
Goldston silty clay loam	404	E	3	S.C.	Edgefield	19-1	SCS	--	Upper	242	44	24	1	63	49	65	65	--	--
Helena sandy loam	420	C	1	Ga.	Spalding	L&M-80	FS	SW	Upper	226	49	24	4	49	37	58	58	--	--
Helena sandy clay loam	481	C	3	Ga.	Spalding	L&M-85	FS	SW	Mid	226	49	24	4	50	35	60	60	--	--
Iredell fine sandy loam	465	B	1	Ga.	Elbert	87-A5	SCS	NE	Mid	211	51	25	4	48	34	58	58	--	--
Lloyd sandy loam	422	B	2	S.C.	Anderson	682	SCS	--	Upper	229	49	24	3	62	41	70			
Lloyd sandy loam	422	C	2	S.C.	Anderson	683	SCS	--	Upper	229	49	24	3	59	43	63			
Lloyd sandy loam	422	C	2	Ga.	Morgan	103-A7	SCS	SE	Mid	215	49	--	4	54	36	66	67	±3	4
Lloyd sandy loam	422	D	2	S.C.	Anderson	683	SCS	--	Upper	229	49	24	3	67	47	70			
Lloyd clay loam	423	B	3	S.C.	Anderson	687	SCS	--	Upper	229	49	24	3	48	31	62			
Lloyd clay loam	423	C	3	Ga.	Morgan	101-A7	SCS	SE	Mid	215	49	24	4	58	35	70			
Lloyd clay loam	423	C	3	S.C.	Oconee	730	SCS	--	Upper	215	54	27	2	73	59	67	67	±4	6

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APPENDIX D TABLE 6 - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE PIEDMONT RESOURCE AREA OF GEORGIA, SHORTLEAF PINE

SOIL TYPE 1	SOIL NO. 2	SLOPE CLASS 3	EROSION CLASS 4	PLOT IDENTIFICATION				ASPECT 9	PLOT POSITION 10	FROST FREE DAYS 11	AVERAGE PRECIPITATION		NO. OF TREES MEASURED 14	AVG. HT. OF TREES IN PLOT 15	AVG. AGE OF TREES IN PLOT 16	SITE INDEX 17	AVG. SITE INDEX ALL PLOTS 18	STANDARD DEVIATION 19	VARIATION COEFFICIENT 20
				STATE 5	COUNTY 6	NUMBER 7	SOURCE 8				ANNUAL 12	GROWING SEASON 13							
Lloyd clay loam (cont.)	423	C	3	S.C.	Greenwood	703	SCS	--	Mid	230	48	24	2	59	36	71			
Lloyd clay loam	423	E	3	S.C.	Oconee	750	SCS	--	Lower	215	54	27	2	61	43	66			
Lloyd loam	424	D	2	S.C.	Oconee	734	SCS	--	Mid	215	54	27	2	75	49	75	74	--	--
Lloyd loam	424	E	2	S.C.	Oconee	753	SCS	--	Mid	215	54	27	3	65	37	73			
Louisa fine sandy loam	427	E	4	S.C.	Pickens	FSA-37	FS	SE	Upper	215	57	29	36	54	52	53	53	--	--
Madison sandy loam	430	B	2	S.C.	Abbeville	587	SCS	--	Upper	221	48	26	2	60	45	64			
Madiaon sandy loam	430	B	2	S.C.	Anderson	673	SCS	--	Upper	229	49	24	3	57	42	61	62	±2	3
Madison sandy loam	430	C	3	S.C.	Pickens	FSA-35	FS	SE	Upper	215	57	29	55	51	32	65			
Madison sandy loam	430	D	3	Ga.	Elbert	FSA-55	FS	SW	Upper	211	51	25	27	40	23	60			
Madison sandy clay loam	467	C	3	S.C.	Anderson	681	SCS	--	Upper	229	49	24	2	87	68	75			
Madison sandy clay loam	467	C	3	S.C.	Abbeville	586	SCS	--	Mid	221	48	26	4	--	--	71			
Madison sandy clay loam	467	D	4	S.C.	Anderson	FSA-544	FS	NE	Upper	229	49	24	47	43	30	57	64	±7	10
Madison sandy clay loam	467	D	4	S.C.	Anderson	FSA-548	FS	NE	Mid	229	49	24	28	54	45	58			
Madison sandy clay loam	467	E	3	S.C.	Pickens	FSA- 38	FS	SE	Lower	215	57	29	42	52	30	69			
Masada fine sandy loam	456	B	1	Ga.	Lumpkin	L&M-30	FS	--	Upper	205	60	29	1	41	21	70	70	--	--
Mecklenburg sandy loam	483	B	1	Ga.	Elbert	P-34	SCS	SE	Upper	211	51	25	2	42	25	60			
Mecklenburg sandy loam	483	B	2	Ga.	Elbert	FSA- 54	FS	SW	Upper	211	51	25	15	42	24	65	62	--	
Mecklenburg sandy clay loam	434	B	4	S.C.	Greenwood	FSA- 62	FS	SE	Lower	230	48	24	88	48	34	65			
Mecklenburg sandy clay loam	434	C	2	Ga.	Elbert	FSA- 53	FS	NW	Mid	211	51	25	21	53	39	60	61	--	--
Mecklenburg sandy clay loam	434	D	4	S.C.	Anderson	FSA-547	FS	NE	Lower	229	49	24	42	52	39	60			
Seneca sandy loam	438	B	1	Ga.	Clarke	P-52	SCS	NW	Lower	217	50	25	1	88	87	69	71	--	--
Seneca sandy loam	438	B	1	Ga.	Clarke	P-53	SCS	SE	Lower	217	50	25	1	65	40	73			
Vance sandy loam	442	B	2	S.C.	Abbeville	1-1	SCS	--	Lower	221	48	26	1	--	--	60	60	--	--
Vance sandy clay loam	443	C	4	Ga.	Baldwin	116-A7	SCS	SW	Mid	233	47	25	4	52	37	61	61	--	--
Wickham fine sandy loam	444	B	2	Ga.	White	P-66	SCS	SW	Mid	212	60	29	2	53	27	73			
Wickham fine sandy loam	444	C	2	Ga.	Habersham	P-	SCS	SW	Mid	214	59	28	1	--	--	70	68	--	--
Wickham fine sandy loam	444	F	3	S.C.	McCormick	582	SCS	--	Mid	222	43	22	3	--	--	63			
Wilkes sandy loam	446	B	2	Ga.	White	P-32	SCS	--	Upper	212	60	29	2	42	38	53	53	--	--

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APPENDIX D TABLE 7 - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE COASTAL PLAIN RESOURCE AREA OF GEORGIA, LOBLOLLY PINE

SOIL TYPE 1/ 1	SOIL NO. 2	SLOPE CLASS 3	EROSION CLASS 4	PLOT IDENTIFICATION				ASPECT 9	PLOT POSITION 10	FROST FREE DAYS 11	AVERAGE PRECIPITATION		NO. OF TREES MEASURED 14	AVG. HT. OF TREES IN PLOT 15	AVG. AGE OF TREES IN PLOT 16	SITE INDEX 17	AVG. SITE INDEX ALL PLOTS 18	STANDARD DEVIATION 19	VARIATION COEFFICIENT 20
				STATE 5	COUNTY 6	NUMBER 7	SOURCE 8				ANNUAL 12	GROWING SEASON 13							
Bladen sandy loam	703	A	1	Ga.	McIntosh	83	SCS	O	V	257	53	34	4	83	43	88	88	--	--
Bladen loam and clay loam	849	A	1	Ga.	McIntosh	84	SCS	O	V	257	53	34	4	90	45	97	94	--	--
Bladen loam and clay loam	849	A	1	Ga.	McIntosh	87	SCS	O	V	257	53	34	4	90	49	90			
Boswell sandy loam	705	B	2	Ga.	Houston	68	SCS	NW	M	225	49	25	3	58	32	70	70	--	--
Boswell sandy clay loam	706	F	4	Ga.	Stewart	82	SCS	W	U	233	50	25	4	82	44	88			
Boswell sandy clay loam	706	F	4	Ga.	Stewart	83	SCS	E	U	233	50	25	5	82	44	86	87	--	--
Boswell sandy clay loam	708	F	4	Ga.	Stewart	84	SCS	NE	U	233	50	25	5	82	42	88			
Bradley sandy loam	798	C	4	Ga.	Baldwin	15	SCS	NE	U	220	48	22	5	81	35	72	72	--	--
Blanton fine sand (high)	809	A	1	S.C.	Hampton	284	SCS	--	--	248	47	30	2	72	44	76	78	--	--
Cahaba loamy fine sand	707	A	1	Ga.	Mitchell	149	SCS	O	V	268	50	28	3	85	35	77	77	--	--
Coxville sandy loam	711	A	1	Ga.	McIntosh	86	SCS	O	V	257	53	34	4	83	44	88	88	--	--
Edisto fine sandy loam	837	A	1	Ga.	McIntosh	82	SCS	O	V	257	53	34	4	84	45	88	91	--	--
Edisto fine sandy loam	837	A	1	Ga.	Liberty	38	SCS	O	V	250	47	30	5	94	51	94			
Eulonia sandy loam	831	A	1	Ga.	Jasper	134	SCS	--	--				12	91	35	108			
Eulonia sandy loam	831	A	1	S.C.	Beaufort	7-4	SCS	--	--				5	79	37	91	95	7	7
Eulonia sandy loam	831	A	1	Ga.	McIntosh	85A	SCS	O	V	257	53	34	4	78	45	80			
Eulonia sandy loam	831	A	1	Ga.	McIntosh	88	SCS	O	V	257	53	34	4	74	28	100			
Eulonia sandy loam, thick surface	832	A	1	Ga.	McIntosh	90	SCS	O	V	257	53	34	3	81	43	85	86	--	--
Eulonia sandy loam, thick surface	832	A	1	S.C.	Jasper	158	SCS	--	--	248	47	30	2	84	45	88			
Eustis sands	715	A	1	S.C.	Barnwell	304	SCS	--	--	239	45	27	1	97	81	90	88	--	--
Eustis sands	715	A	1	S.C.	Barnwell	300	SCS	--	U	239	45	27	3	87	33	82			
Eustis loamy sand	714	D	1	Ga.	Randolph	58	SCS	SW	M	233	50	27	4	90	54	88	88	--	--
Eustis loamy sand, shallow	771	B	1	Ga.	Houston	8	SCS	SW	M	228	48	27	3	89	29	90	90	--	--
Fairhope sandy loam, thick surface	834	A	1	Ga.	McIntosh	89	SCS	O	V	257	53	34	4	61	28	81	81	--	--
Flint fine sandy loam	717	A	1	S.C.	Hampton	288	SCS	--	--	248	47	30	1	78	37	88			
Flint fine sandy loam	717	B	1	Ga.	Baker	147	SCS	SW	V	249	50	29	3	72	38	83	88	--	--
Flint fine sandy loam	717	A	1	Ga.	Baker	148	SCS	O	V	249	50	29	3	83	44	87			
Grady sandy loam	719	A	1	S.C.	Barnwell	308	SCS	--	--	239	45	27	3	90	57	88			
Grady sandy loam	719	A	1	S.C.	Allendale	418	SCS	--	--	248	44	28	1	97	49	98	91	--	--
Grady sandy loam	719	A	1	S.C.	Allendale	418	SCS	--	--	246	44	26	1	96	83	89			
Grady clay loam	720	A	1	S.C.	Barnwell	311	SCS	--	--	239	45	27	3	95	82	88	88	--	--
Gilead loamy sand	776	B	1	Ga.	Pulaski	77	SCS	SW	V	225	49	25	3	77	32	95	89	--	--
Gilead loamy sand	778	B	1	Ga.	Twiggs	78	SCS	NE	U	225	49	25	4	84	30	83			
Galestown fine sand	847	A	1	Ga.	McIntosh	11	SCS	O	V	225	53	34	5	87	27	91	91	--	--
Greenville sandy loam	721	B	2	Ga.	Houston	84	SCS	SE	U	225	49	25	4	88	48	75			
Greenville sandy loam	721	B	2	Ga.	Dougherty	38	SCS	S	V	249	50	28	5	60	28	80			
Greenville sandy loam	721	A	1	Ga.	Dougherty	134	SCS	NE	U	249	50	28	4	89	38	79	82	5	7
Greenville sandy loam	721	B	2	Ga.	Dougherty	135	SCS	N	M	249	50	28	4	74	34	89			
Greenville sandy loam	721	B	2	Ga.	Dougherty	143	SCS	E	M	249	50	28	4	78	40	85			
Greenville clay loam	722	B	4	Ga.	Twiggs	19	SCS	SW	U	224	45	25	4	60	24	87	85	--	--
Greenville clay loam	722	C	3	Ga.	Calhoun	70A	SCS	NW	U	242	50	28	5	88	31	83			
Goldsboro loamy sand	783	A	1	Ga.	Lowndes	783	SCS	SE	M	247	49	31	4	82	35	96	98	--	--
Hoffman sandy loam	723	B	4	Ga.	Bulloch	59	SCS	E	U	230	49	25	4	82	32	77	77	--	--
Independence sands	727	A	1	S.C.	Barnwell	309	SCS	--	--	239	45	27	2	85	49	88	88	--	--
Kalmia loamy sand	731	B	3	Ga.	Bulloch	94	SCS	W	M	245	42	30	3	73	27	100	100	--	--
Klej sand	735	B	1	Ga.	Tattnall	45	SCS	NW	M	245	48	27	3	59	29	78			
Klej sand	735	B	1	Ga.	Liberty	33	SCS	O	V	250	47	30	5	85	31	82	79	--	--
Klej sand	735	A	1	S.C.	Jasper	130	SCS	--	--	248	47	30	7	70	43	76			
Klej loamy sand	734	A	1	S.C.	Hampton	282	SCS	--	--	248	47	30	3	--	--	72	72	--	--

1/ For explanation of headings and columns see footnote at end of Appendix D.

M861.476-75186

APPENDIX D TABLE 7 - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE COASTAL PLAIN RESOURCE AREA OF GEORGIA, LOBLOLLY PINE

SOIL TYPE 1	SOIL NO. 2	SLOPE CLASS 3	EROSION CLASS 4	PLOT IDENTIFICATION				ASPECT 9	PLOT POSITION 10	FROST FREE DAYS 11	AVERAGE PRECIPITATION		NO. OF TREES MEASURED 14	AVG. HT. OF TREES IN PLOT 15	AVG. AGE OF TREES IN PLOT 16	SITE INDEX 17	AVG. SITE INDEX ALL PLOTS 18	STANDARD DEVIATION 19	VARIATION COEFFICIENT 20
				STATE 5	COUNTY 6	NUMBER 7	SOURCE 8				ANNUAL 12	GROWING SEASON 13							
Lakeland sands	737	A	1	Ga.	Twiggs	61	SCS	E	U	225	49	25	4	67	30	87			
Lakeland sands	737	A	1	S.C.	Barnwell	305	SCS	--	--	239	43	27	--	--	--	79			
Lakeland sands	737	B	1	S.C.	Hampton	290	SCS	--	M	248	47	30	5	76	37	90			
Lakeland sands	737	D	3	Ga.	Stewart	61B	SCS	SW	L	233	50	25	4	62	23	85	85	6	7
Lakeland sands	737	A	1	S.C.	Barnwell	305	SCS	--	--	239	45	27	2	77	47	79			
Lakeland sands	737	A	1	S.C.	Jasper	126	SCS	--	--	248	47	30	4	94	50	94			
Lakeland sands	737	A	1	S.C.	Allendale	422	SCS	--	--	246	44	26	3	86	45	90			
Lakeland sands	737	B	1	S.C.	Barnwell	310	SCS	--	--	239	45	27	4	80	50	80			
Lakeland loamy sand	736	B	4	Ga.	Houston	70	SCS	SE	M	225	49	25	3	66	24	96	96	--	--
Leaf fine sandy loam	738	A	1	S.C.	Allendale	424	SCS	--	--	239	44	26	3	86	33	104	104	--	--
Local alluvial land, moderately well drained*	768	B	2	S.C.	Aiken	317	SCS	--	--	247	43	23	1	72	45	76	76	--	--
Lynchburg sandy loam	741	B	1	Ga.	Pulaski	72	SCS	E	M	225	49	25	3	75	33	90	90	--	--
Magnolia sandy loam	743	B	2	Ga.	Houston	62	SCS	SW	U	225	48	25	4	57	27	80	80	--	--
Norfolk loamy sand, thick surface	747	B	1	Ga.	Bulloch	27	SCS	S	M	240	42	30	3	72	29	90			
Norfolk loamy sand, thick surface	747	B	2	S.C.	Barnwell	304	SCS	--	L	239	45	27	2			90	84	--	--
Norfolk loamy sand, thick surface	747	B	2	S.C.	Barnwell	302	SCS	--	L	239	45	27	1	76	57	73			
Norfolk sandy loam	746	B	2	S.C.	Barnwell	305	SCS	--	U	239	45	27	4	73	45	76			
Norfolk sandy loam	746	B	2	S.C.	Barnwell	302	SCS	--	L	239	45	27	1	--	--	73			
Orangeburg loamy sand, thick surface	750	B	1	Ga.	Twiggs	16	SCS	SW	M	224	45	25	5	58	21	91	91	--	--
Orangeburg sandy loam	749	B	1	Ga.	Baker	152	SCS	SW	V	249	50	29	3	73	37	83			
Orangeburg sandy loam	749	B	2	Ga.	Twiggs	17	SCS	SW	U	224	45	25	5	56	22	89			
Orangeburg sandy loam	749	B	2	Ga.	Dougherty	132	SCS	NE	M	249	50	28	4	66	31	83			
Orangeburg sandy loam	749	B	2	Ga.	Dougherty	151	SCS	NW	M	249	50	28	3	92	68	83	88	5	6
Orangeburg sandy loam	749	C	3	Ga.	Macon	10	SCS	NW	M	228	48	27	3	59	24	89			
Orangeburg sandy loam	749	C	3	Ga.	Houston	66	SCS	SE	M	225	49	25	4	58	26	95			
Plummer sands	751	A	1	Ga.	McIntosh	3	SCS	E	L	257	53	34	5	74	23	115			
Plummer sands	751	A	1	Ga.	Lowndes	181	SCS	O	L	247	49	31	3	72	38	93	104	--	--
Ruston loamy sand, thick surface	754	B	1	Ga.	Twiggs	55	SCS	E	U	230	49	25	4	55	32	81			
Ruston loamy sand, thick surface	754	B	1	Ga.	Twiggs	56	SCS	E	U	230	49	25	4	53	22	84	83	--	--
Ruston loamy sand, thick surface	754	B	1	Ga.	Randolph	57	SCS	S	V	233	50	26	5	75	38	85			
Ruston sandy loam	753	B	2	S.C.	Barnwell	314	SCS	--	U	239	45	27	1	84	55	81	81	--	--
Vaucluse sandy loam	820	B	2	Ga.	Stewart	59	SCS	NE	U	233	50	25	5	52	31	78	78	--	--
Vaucluse sandy loam	820	B	2	Ga.	Stewart	60A	SCS	SE	U	233	50	25	5	57	31	71			
Vaucluse sandy loam	820	F	3	Ga.	Randolph	58	SCS	E	M	233	50	26	5	72	35	84			
Vaucluse-Gilead loamy sand	761	B	4	Ga.	Bulloch	96	SCS	E	M	245	42	30	3	65	27	90			
Vaucluse-Gilead loamy sand	761	B	5	Ga.	Twiggs	80	SCS	S	M	225	49	25	4	55	36	69	81	--	--
Vaucluse-Gilead loamy sand	761	C	6	Ga.	Twiggs	20	SCS	S	U	240	45	25	5	67	33	84			
Wahee fine sandy loam	763	A	1	Ga.	Baker	145	SCS	O	V	249	50	29	3	57	26	80			
Wahee fine sandy loam	763	A	1	Ga.	Baker	146	SCS	O	V	249	50	29	3	72	37	82	81	--	--
Weston fine sandy loam, thick surface	840	A	1	Ga.	Liberty	35	SCS	O	M	250	47	30	5	76	37	87			
Weston fine sandy loam, thick surface	840	A	1	S.C.	Jasper	138	SCS	--	--				7	55	24	90	89	--	--
Weston loamy coarse sand	841	A	1	S.C.	Jasper	141	SCS	--	--	250	47	30	9	78	36	90	90	--	--
Weston loamy coarse sand	841	A	1	Ga.	Liberty	37B	SCS	O	V	250	47	30	3	74	28	90			

* Tentative soil name.

USCS-478-78486

APPENDIX D TABLE 8 - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE COASTAL PLAIN RESOURCE AREA OF GEORGIA, SLASH PINE

SOIL TYPE 1/	SOIL NO.	SLOPE CLASS	EROSION CLASS	PLOT IDENTIFICATION				ASPECT	PLOT POSITION	FROST FREE DAYS	AVERAGE PRECIPITATION		NO. OF TREES MEASURED	AVG. HT. OF TREES IN PLOT	AVG. AGE OF TREES IN PLOT	SITE INDEX	AVG. SITE INDEX ALL PLOTS	STANDARD DEVIATION	VARIATION COEFFICIENT
				STATE	COUNTY	NUMBER	SOURCE				ANNUAL	GROWING SEASON							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Alluvial land, imperfectly and poorly drained*	767	A	1	Ga.	Treutlen	109	SCS	SW	V	251	47	28	4	79	41	85			
Alluvial land, imperfectly and poorly drained	767	A	1	Ga.	Montgomery	123	SCS	SE	V	251	47	28	4	80	51	80	82	--	--
Edisto loamy sand	838	A	1	Ga.	McIntosh	81	SCS	O	V	257	53	34	4	76	46	78	78	--	--
Flint sandy loam	717	A	1	S.C.	Hampton	288	SCS	--	--	248	47	30	2	--	--	89	89	--	--
Goldsboro loamy sand, thick surface	783	A	1	Ga.	Ben Hill	99	SCS	O	V	246	46	26	4	68	29	87			
Goldsboro loamy sand, thick surface	783	A	1	Ga.	Jeff Davis	99	SCS	O	V	245	47	29	4	73	30	93	93	--	--
Goldsboro loamy sand, thick surface	783	A	1	Ga.	Evans	99	SCS	SW	U	240	48	25	4	65	22	100			
Grady sandy loam	719	A	1	Ga.	Appling	31	SCS	O	L	255	47	29	5	84	44	88	85	--	--
Grady sandy loam	719	A	1	Ga.	Bulloch	24	SCS	SW	L	240	42	30	5	77	43	82			
Gilead loamy coarse sand, thick surface	782	B	1	Ga.	Montgomery	120	SCS	O	M	251	47	27	4	61	29	79	79	--	--
Gilead loamy sand	776	B	2	Ga.	Bulloch	76	SCS	SW	L	255	48	25	4	73	33	88	88	--	--
Huckabee sand	725	A	1	Ga.	Screven	43	SCS	E	U	243	49	25	4	71	44	78	78	--	--
Irvington loamy sand, thick surface	830	A	1	Ga.	Tattnall	37	SCS	NW	U	240	48	25	4	63	25	90			
Irvington loamy sand, thick surface	830	A	1	Ga.	Berrien	173	SCS	O	V	252	46	28	3	52	20	88			
Irvington loamy sand, thick surface	830	A	1	Ga.	Berrien	145	SCS	O	V	252	46	28	3	58	30	73	86	9	10
Irvington loamy sand, thick surface	830	A	1	Ga.	Berrien	175	SCS	O	V	252	46	28	3	69	27	93			
Klej loamy sand, shallow	734	A	1	Ga.	Appling	30	SCS	O	V	251	47	29	5	66	29	89			
Klej loamy sand, shallow	734	A	1	Ga.	Irwin	157	SCS	SW	M	246	46	27	4	64	26	90	85	5	6
Klej loamy sand, shallow	734	A	1	Ga.	Berrien	170	SCS	O	V	252	46	28	4	66	32	80			
Klej loamy sand, shallow	734	A	1	Ga.	Berrien	171	SCS	O	V	252	46	28	4	71	34	82			
Kalmia sandy loam	731	B	2	Ga.	Bulloch	93	SCS	SW	M	245	42	30	3	72	27	97	93	--	--
Kalmia sandy loam	731	A	1	S.C.	Hampton	289	SCS	--	--	248	47	30	5	--	--	90			
Leon fine sand	739	A	1	Ga.	McIntosh	10	SCS	O	V	257	53	34	5	74	51	74	78	--	--
Leon fine sand	739	A	1	Ga.	McIntosh	14	SCS	O	V	257	53	34	5	61	27	82			
Lakeland sand	737	C	2	S.C.	Allendale	423	SCS	--	--	246	44	26	2	84	53	82	82	--	--
Local alluvial land, moderately well drained	768	A	1	Ga.	Irwin	92	SCS	O	V	252	46	27	4	91	47	92	91	--	--
Local alluvial land, moderately well drained	768	A	1	Ga.	Irwin	93	SCS	O	V	252	46	27	4	90	49	90			
Lynchburg sandy loam	741	A	1	Ga.	Bulloch	23	SCS	SE	L	240	42	30	2	86	35	100			
Lynchburg sandy loam	741	A	1	Ga.	Pulaski	73	SCS	E	M	225	48	25	4	76	32	96	94	--	--
Lynchburg sandy loam	741	A	1	S.C.	Hampton	282	SCS	--	--	248	47	30	3	--	--	87			
Lynchburg loamy sand, thick surface	742	A	1	Ga.	Bulloch	22	SCS	SW	L	240	42	30	3	71	47	72			
Lynchburg loamy sand, thick surface	742	A	1	Ga.	Treutlen	111	SCS	W	L	251	47	26	4	87	49	87	82	--	--
Lynchburg loamy sand, thick surface	742	A	1	Ga.	Treutlen	112	SCS	SW	U	251	47	26	4	79	41	87			
Lakeland sands	737	B	1	Ga.	Treutlen	106A	SCS	NW	L	251	47	26	4	57	28	75	75	--	--
Myatt fine sandy loam	814	A	1	S.C.	Hampton	293	SCS	--	--	248	47	30	2	--	--	96	96	--	--
Norfolk loamy sand, thick surface	747	A	1	Ga.	Bulloch	26	SCS	S	M	240	42	30	2	73	31	92			
Norfolk loamy sand, thick surface	747	B	1	Ga.	Treutlen	110	SCS	SW	U	251	47	26	4	66	33	80	88	5	5
Norfolk loamy sand, thick surface	747	C	1	Ga.	Treutlen	105A	SCS	NW	M	251	47	26	4	67	28	90			
Norfolk loamy sand, thick surface	747	C	2	Ga.	Montgomery	122	SCS	SE	L	251	47	27	4	68	28	90			
Norfolk sandy loam	746	B	1	Ga.	Jeff Davis	53	SCS	O	V	255	47	29	5	77	31	96			
Norfolk sandy loam	746	B	1	Ga.	Montgomery	121	SCS	SE	U	251	47	27	4	61	31	75	86	--	--
Norfolk sandy loam	746	B	1	Ga.	Pulaski	71	SCS	E	M	225	48	25	4	72	33	87			
Ona sands	748	A	1	Ga.	Appling	32	SCS	O	V	250	47	29	4	60	24	79	79		
Plummer sands	751	A	1	Ga.	Ware	9A	SCS	SW	M	254	49	30	5	62	28	82			
Plummer sands	751	A	1	Ga.	Tift	23	SCS	O	V	246	48	26	5	76	31	94			
Plummer sands	751	A	1	Ga.	Ben Hill	160	SCS	SE	U	246	43	26	4	73	31	90	91	7	8
Plummer sands	751	A	1	Ga.	Lowndes	182	SCS	O	V	247	49	31	3	69	25	98			

1/ For explanation of headings and columns see footnote at end of Appendix D.

* Tentative soil name.

MR61-476-77x86

APPENDIX D TABLE 8 - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE COASTAL PLAIN RESOURCE AREA OF GEORGIA, SLASH PINE

SOIL TYPE 1	SOIL NO. 2	SLOPE CLASS 3	EROSION CLASS 4	PLOT IDENTIFICATION				ASPECT 9	PLOT POSITION 10	FROST FREE DAYS 11	AVERAGE PRECIPITATION		NO. OF TREES MEASURED 14	AVG. HT. OF TREES IN PLOT 15	AVG. AGE OF TREES IN PLOT 16	SITE INDEX 17	AVG. SITE INDEX ALL PLOTS 18	STANDARD DEVIATION 19	VARIATION COEFFICIENT 20
				STATE 5	COUNTY 6	NUMBER 7	SOURCE 8				ANNUAL 12	GROWING SEASON 13							
Rains loamy sand, thick surface	807	A	1	Ga.	Berrien	189	SCS	O	V	252	46	28	4	73	45	76	82	--	--
Rains loamy sand, thick surface	807	A	1	Ga.	Tift	22	SCS	O	V	256	48	26	5	82	40	90			
Rains sandy loam, thick surface	752	A	1	Ga.	Montgomery	128	SCS	SE	V	251	47	27	4	74	43	79	80	--	--
Rains sandy loam, thick surface	752	A	1	S.C.	Allendale	416	SCS	--	--	246	44	26	--	--	--	82			
Sawyer sandy loam	756	B	2	Ga.	Montgomery	124	SCS	NW	M	251	47	27	4	71	31	89	89	--	--
Tifton sandy loam	758	B	1	Ga.	Bulloch	106	SCS	N	U	245	42	25	5	61	31	77	83	--	--
Tifton sandy loam	758	C	2	Ga.	Treutlen	113	SCS	W	L	251	47	26	4	74	33	90			
Vaucluse-Gilead loamy sand	761	B	2	Ga.	Bulloch	97	SCS	E	M	245	42	30	3	64	26	89	89	--	--
Weston fine sandy loam	839	A	1	Ga.	Camden	21	SCS	O	V	266	53	34	5	75	30	95	89	--	--
Weston fine sandy loam	839	A	1	S.C.	Jasper	8-1	SCS	--	--	248	47	30	4	--	--	84			
Weston loamy coarse sand	841	A	1	Ga.	Liberty	37A	SCS	O	V	250	47	30	5	71	28	95	95	--	--
Wahee fine sandy loam	763	A	1	Ga.	Tattnall	49	SCS	NW	L	245	50	25	4	59	22	90	90	--	--

WM81-4-76-7848

APPENDIX D TABLE 9 - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE COASTAL PLAIN RESOURCE AREA OF GEORGIA, LONGLEAF PINE

SOIL TYPE 1/	SOIL NO.	SLOPE CLASS	EROSION CLASS	PLOT IDENTIFICATION				ASPECT	PLOT POSITION	FROST FREE DAYS	AVERAGE PRECIPITATION		NO. OF TREES MEASURED	AVG. HT. OF TREES IN PLOT	AVG. AGE OF TREES IN PLOT	SITE INDEX	AVG. SITE INDEX ALL PLOTS	STANDARD DEVIATION	VARIATION COEFFICIENT
				STATE	COUNTY	NUMBER	SOURCE				ANNUAL	GROWING SEASON							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Barth loamy fine sand	702	A	1	Ga.	Dougherty	144	SCS	S	U	249	50	28	4	84	34	80	78	--	--
Barth loamy fine sand	702	A	1	Ga.	Tattnall	48	SCS	SW	M	245	49	25	4	83	38	78			
Blanton sand, low	781	A	1	Ga.	Glynn	16	SCS	O	V	257	53	34	5	83	47	85			
Blanton sand, low	781	A	1	S.C.	Jasper	129	SCS	--	--	248	47	30	9	67	44	73	70	4	8
Blanton sand, low	781	A	1	S.C.	Hampton	284	SCS	--	--	--	--	--	4	66	46	69			
Blanton sand, low	781	A	1	S.C.	Hampton	283	SCS	--	--	--	--	--	2	82	38	73			
Carnegie fine sandy loam	708	B	1	Ga.	Dougherty	43	SCS	SW	L	249	50	28	4	85	80	89	70	--	--
Carnegie fine sandy loam	708	B	1	Ga.	Dougherty	40	SCS	S	L	249	50	28	5	72	50	72			
Eulonia sandy loam	831	A	1	Ga.	McIntosh	78	SCS	O	V	257	53	34	4	64	45	88			
Eulonia sandy loam	831	A	1	Ga.	McIntosh	2	SCS	O	V	257	53	34	5	85	35	79			
Eulonia sandy loam	831	A	1	Ga.	McIntosh	77	SCS	O	V	257	53	34	5	88	41	73	70	5	7
Eulonia sandy loam	831	A	1	Ga.	McIntosh	79	SCS	O	V	257	53	34	4	85	47	67			
Eulonia sandy loam	831	A	1	Ga.	McIntosh	85B	SCS	O	V	257	53	34	3	72	49	73			
Eustis sands	715	A	1	S.C.	Barnwell	304	SCS	--	--	239	45	27	1	73	63	85	85	--	--
Edisto loamy sand	838	A	1	Ga.	McIntosh	73	SCS	O	V	257	53	34	4	68	30	92	92	--	--
Edisto fine sandy loam	837	A	1	Ga.	McIntosh	72	SCS	O	V	257	53	34	5	85	34	80	78	--	--
Edisto fine sandy loam	837	A	1	Ga.	McIntosh	80	SCS	O	V	257	53	34	4	65	38	75			
Flint fine sandy loam	717	A	1	Ga.	Tattnall	44	SCS	E	U	245	49	25	3	57	34	71	71	--	--
Goldsboro sandy loam	718	A	1	Ga.	Ben Hill	182	SCS	NE	U	246	46	28	4	71	45	75	77	--	--
Goldsboro sandy loam	718	A	1	S.C.	Jasper	125	SCS	--	--	248	47	30	7	58	30	78			
Goldsboro loamy sand, thick surface	783	A	1	Ga.	Bulloch	25	SCS	NW	M	240	42	30	3	83	33	80	85	--	--
Goldsboro loamy sand, thick surface	783	A	1	Ga.	Jeff Davis	52A	SCS	O	V	255	50	29	4	70	32	90			
Gilead loamy sand	778	C	1	Ga.	Ben Hill	100	SCS	NE	U	246	48	28	4	58	50	58			
Gilead loamy sand	778	C	1	Ga.	Treutlen	107	SCS	SE	U	251	47	26	4	65	53	83			
Gilead loamy sand	778	B	1	Ga.	Treutlen	117	SCS	NE	M	251	47	26	4	62	34	77	86	8	12
Gilead loamy sand	776	B	1	Ga.	Tift	24	SCS	NE	U	256	48	28	5	61	40	68			
Gilead loamy coarse sand, thick surface	782	B	1	Ga.	Treutlen	119	SCS	NE	U	251	47	28	4	60	30	81	81	--	--
Gilead loamy sand, thick surface	811	B	1	Ga.	Ben Hill	118	SCS	NE	L	248	46	26	4	69	47	71			
Gilead loamy sand, thick surface	811	C	1	Ga.	Irwin	168	SCS	E	U	248	48	27	4	68	47	70			
Gilead loamy sand, thick surface	811	C	1	Ga.	Ben Hill	102A	SCS	SE	M	246	46	26	4	67	35	82	73	8	8
Gilead loamy sand, thick surface	811	C	2	Ga.	Ben Hill	101	SCS	SE	L	248	48	28	4	89	47	71			
Huckabee sands	725	A	1	Ga.	Screven	42	SCS	E	U	240	49	25	4	74	49	74	74	--	--
Huckabee sands	725	A	1	S.C.	Allendale	309	SCS	--	--	246	44	26	2	78	55	74			
Irvington sandy loam	784	A	1	Ga.	Irwin	25	SCS	O	V	248	46	27	5	70	46	72	89	--	--
Irvington sandy loam	784	A	1	Ga.	Irwin	156	SCS	SE	M	248	46	27	4	88	51	85			
Irvington loamy sand, thick surface	830	A	1	Ga.	Tattnall	38	SCS	NW	U	240	48	25	4	63	30	85	91	--	--
Irvington loamy sand, thick surface	830	A	1	Ga.	Berrien	176	SCS	O	V	252	48	28	3	70	29	98			
Independence sands	727	A	1	S.C.	Barnwell	309	SCS	--	--	239	45	27	1	73	54	70	70	--	--
Izagora loamy sand, thick surface	730	A	1	Ga.	Screven	41	SCS	E	U	240	49	25	4	74	45	78	78	--	--
Kalmia sandy loam	731	B	1	Ga.	Bulloch	95	SCS	W	M	245	42	25	3	85	31	86	88	--	--
Kershaw sands	733	B	1	Ga.	Tattnall	47	SCS	NW	M	245	48	25	3	50	35	82	62	--	--
Klej loamy sand, shallow	734	A	1	Ga.	Mitchell	140	SCS	E	U	288	50	28	4	67	57	83			
Klej loamy sand, shallow	734	A	1	Ga.	Mitchell	141	SCS	SE	U	288	50	28	4	85	40	73			
Klej loamy sand, shallow	734	A	1	Ga.	Lowndes	5	SCS	O	U	247	49	30	5	83	48	65			
Klej loamy sand, shallow	734	A	1	Ga.	Montgomery	125	SCS	E	M	251	47	28	4	89	45	73	70	8	8
Klej loamy sand, shallow	734	A	1	Ga.	Ware	8	SCS	O	V	254	48	30	5	80	29	80			
Klej loamy sand, shallow	734	A	1	Ga.	Irwin	155	SCS	NE	M	248	48	27	4	65	45	89			
Klej loamy sand, shallow	734	A	1	Ga.	Ben Hill	181	SCS	SE	M	248	45	28	4	60	42	88			

1/ For explanation of headings and columns see footnote at end of Appendix D.

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APPENDIX D TABLE 9 - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE COASTAL PLAIN RESOURCE AREA OF GEORGIA, LONGLEAF PINE

SOIL TYPE 1	SOIL NO. 2	SLOPE CLASS 3	EROSION CLASS 4	PLOT IDENTIFICATION				ASPECT 9	PLOT POSITION 10	FROST FREE DAYS 11	AVERAGE PRECIPITATION		NO. OF TREES MEASURED 14	AVG. HT. OF TREES IN PLOT 15	AVG. AGE OF TREES IN PLOT 16	SITE INDEX 17	AVG. SITE INDEX ALL PLOTS 18	STANDARD DEVIATION 19	VARIATION COEFFICIENT 20
				STATE 5	COUNTY 6	NUMBER 7	SOURCE 8				ANNUAL 12	GROWING SEASON 13							
Klej sands	735	A	1	Ga.	Tattnall	46	SCS	NW	M	245	48	25	3	57	34	71			
Klej sands	735	A	1	Ga.	Glynn	17	SCS	O	V	257	53	34	5	64	48	66	71	--	--
Klej sands	735	A	1	Ga.	Glynn	20	SCS	O	V	257	53	34	5	68	45	72			
Lakeland loamy sand, shallow	736	A	1	Ga.	Ware	7	SCS	O	V	254	48	30	5	75	45	79			
Lakeland loamy sand, shallow	736	A	1	Ga.	Irwin	96	SCS	NE	M	252	46	27	4	69	51	68			
Lakeland loamy sand, shallow	736	A	1	Ga.	Irwin	97	SCS	O	M	254	46	27	4	77	49	67			
Lakeland loamy sand, shallow	736	A	1	Ga.	Mitchell	139	SCS	NE	M	268	50	28	4	59	48	60	71	9	11
Lakeland loamy sand, shallow	736	A	1	Ga.	Mitchell	142	SCS	SW	U	268	50	28	4	50	33	60			
Lakeland loamy sand, shallow	736	A	1	Ga.	Baker	150	SCS	O	V	269	50	29	3	73	58	68			
Lakeland loamy sand, shallow	736	B	1	Ga.	Treutlen	115	SCS	NE	M	251	47	26	4	64	33	81			
Lakeland loamy sand, shallow	736	B	1	Ga.	Treutlen	116	SCS	NW	L	251	47	26	4	66	33	85			
Lakeland sands	737	A	1	S.C.	Allendale	428	SCS	--	U				2	60	49	62			
Lakeland sands	737	A	1	Ga.	Glynn	18	SCS	O	V	257	53	34	5	71	52	70			
Lakeland sands	737	A	1	S.C.	Allendale	421	SCS	--	--	246	44	26	1	62	47	64			
Lakeland sands	737	A	1	S.C.	Barnwell	316	SCS	--	--	239	45	27	2	65	61	59			
Lakeland sands	737	A	1	S.C.	Barnwell	297	SCS	--	--	239	45	27	4	70	56	66			
Lakeland sands	737	A	1	S.C.	Barnwell	302	SCS	--	--	239	45	27	2	77	68	66			
Lakeland sands	737	A	1	S.C.	Barnwell	310	SCS	--	--	239	45	27	1	76	53	73			
Lakeland sands	737	A	1	S.C.	Allendale	428	SCS	--	--	246	44	27	3	80	48	62	65	4	6
Lakeland sands	737	A	1	S.C.	Barnwell	308	SCS	--	--	239	45	28	2	66	53	64			
Lakeland sands	737	A	1	S.C.	Barnwell	315	SCS	--	--	239	45	27	2	68	57	63			
Lakeland sands	737	A	1	S.C.	Aiken	319	SCS	--	--	247	43	27	6	72	54	68			
Lakeland sands	737	A	1	S.C.	Barnwell	306	SCS	--	--	239	45	28	7	66	53	64			
Lakeland sands	737	A	1	S.C.	Barnwell	312	SCS	--	--	239	43	28	5	69	48	72			
Lakeland sands	737	A	1	S.C.	Aiken	328	SCS	--	--	247	43	28	2	47	31	63			
Lakeland sands	737	A	1	S.C.	Aiken	329	SCS	--	--	247	43	28	5	51	36	61			
Lakeland sands	737	A	1	S.C.	Aiken	317	SCS	--	--	247	43	28	1	66	48	67			
Local alluvial, moderately well drained	768	B	1	S.C.	Aiken	317	SCS	--	--	247	43	28	3	71	49	72	72	--	--
Lynchburg loamy sand, thick surface	742	A	1	Ga.	Irwin	154	SCS	NE	M	246	46	27	4	70	42	77	77	--	--
Lynchburg sandy loam	741	A	1	Ga.	Dougherty	41	SCS	O	V	249	50	28	5	76	43	82			
Lynchburg sandy loam	741	B	1	Ga.	Ware	282	SCS	SW	M	254	48	30	5	66	39	75	77	--	--
Lynchburg sandy loam	741	B	1	S.C.	Hampton	9B	SCS	--	--	248	47	30	3			73			
Leon fine sand	739	A	1	Ga.	McIntosh	13	SCS	O	V	257	53	34	5	49	38	57			
Leon fine sand	739	A	1	Ga.	McIntosh	15	SCS	O	V	257	53	34	5	66	50	66			
Leon fine sand	739	A	1	Ga.	Liberty	34	SCS	O	V	250	47	30	5	59	53	57			
Leon fine sand	739	A	1	Ga.	Lowndes	6	SCS	O	M	247	49	30	5	61	38	71			
Leon fine sand	739	A	1	Ga.	Clinch	44	SCS	O	V	247	49	30	5	65	48	66	65	8	9
Leon fine sand	739	A	1	Ga.	Clinch	45	SCS	O	V	247	49	30	5	67	48	69			
Leon fine sand	739	A	1	Ga.	Clinch	46	SCS	O	V	247	49	30	5	71	50	71			
Leon fine sand	739	A	1	Ga.	Clinch	48	SCS	O	V	247	49	30	5	56	47	57			
Leon fine sand	739	A	1	Ga.	Clinch	49	SCS	O	V	247	49	30	3	62	39	67			
Leon fine sand	739	A	1	Ga.	Clinch	50	SCS	O	V	247	49	30	3	66	48	67			
Norfolk losmy sand, thick surface	747	A	1	Ga.	Mitchell	138	SCS	W	L	268	50	28	4	73	47	75			
Norfolk loamy sand, thick surface	747	B	1	Ga.	Mitchell	137	SCS	W	L	268	50	28	4	67	45	71			
Norfolk loamy sand, thick surface	747	B	1	Ga.	Treutlen	114	SCS	S	M	251	47	26	4	63	28	84	78	--	--
Norfolk loamy sand, thick surface	747	B	1	Ga.	Irwin	95	SCS	S	L	246	46	27	4	72	48	78			
Norfolk loamy sand, thick surface	747	C	1	Ga.	Treutlen	1058	SCS	NW	M	251	47	26	3	64	33	81			

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APPENDIX D TABLE 9 - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE COASTAL PLAIN RESOURCE AREA OF GEORGIA, LONGLEAF PINE

SOIL TYPE 1	SOIL NO. 2	SLOPE CLASS 3	EROSION CLASS 4	PLOT IDENTIFICATION				ASPECT 9	PLOT POSITION 10	FROST FREE DAYS 11	AVERAGE PRECIPITATION		NO. OF TREES MEASURED 14	AVG. HT. OF TREES IN PLOT 15	AVG. AGE OF TREES IN PLOT 16	SITE INDEX 17	AVG. SITE INDEX ALL PLOTS 18	STANDARD DEVIATION 19	VARIATION COEFFICIENT 20
				STATE 5	COUNTY 6	NUMBER 7	SOURCE 8				ANNUAL 12	GROWING SEASON 13							
Norfolk sandy loam	746	B	1	S.C.	Barnwell	301	SCS	--	L	239	45	27	3	70	57	65			
Norfolk sandy loam	746	B	1	S.C.	Barnwell	305	SCS	--	U	239	45	27	1	67	50	67			
Norfolk sandy loam	746	B	1	S.C.	Barnwell	302	SCS	--	M	239	45	27	4	7B	70	67	6B	2	3
Norfolk sandy loam	746	B	1	S.C.	Barnwell	301	SCS	--	L	239	45	27	1	73	56	69			
Norfolk sandy loam	746	A	1	S.C.	Allendale	421	SCS	--	--	246	44	26	1	69	49	70			
Ona sand	74B	A	1	Ga.	McIntosh	1	SCS	O	V	257	53	34	5	54	42	74			
Ona sand	74B	A	1	Ga.	McIntosh	12A	SCS	O	V	257	53	34	5	6B	62	61	68	--	--
Ona sand	74B	A	1	Ga.	Clinch	47	SCS	O	V	257	49	30	5	65	43	70			
Plummer sand	751	A	1	Ga.	Lowndes	178	SCS	SE	L	247	49	31	3	75	3B	92			
Plummer sand	751	A	1	Ga.	Lowndes	179	SCS	E	L	247	49	31	3	73	40	92	B9	6	6
Plummer sand	751	A	1	Ga.	Ware	9	SCS	SE	M	254	48	30	5	63	34	BO			
Plummer sand	751	A	1	Ga.	Lowndes	1BO	SCS	O	L	247	49	31	3	BO	41	92			
Ruston sandy loam	753	A	1	Ga.	Dougherty	131	SCS	SE	L	249	50	2B	4	74	51	74			
Ruston sandy loam	753	A	1	S.C.	Barnwell	314	SCS	--	U	239	45	27	1	--	--	77	73	3	4
Ruston sandy loam	753	B	1	Ga.	Dougherty	27	SCS	O	V	249	50	2B	5	65	36	73			
Ruston sandy loam	753	B	1	Ga.	Dougherty	130	SCS	E	L	249	50	2B	4	67	36	70			
Ruston loamy sand, thick surface	754	A	1	Ga.	Dougherty	129	SCS	NW	V	249	50	2B	4	64	47	63	63	--	--
Sawyer sandy loam	756	B	1	Ga.	Montgomery	126	SCS	SW	U	251	47	27	4	66	43	64	70	--	--
Sawyer sandy loam	756	C	1	Ga.	Montgomery	127	SCS	SW	M	251	47	27	4	71	71	76			
Susquehanna sandy loam	757	C	1	Ga.	Ben Hill	103	SCS	SW	U	246	46	26	4	53	52	52	5B	--	--
Susquehanna sandy loam	757	C	1	Ga.	Ben Hill	104	SCS	SE	V	246	46	26	4	61	45	64			
Susquehanna sandy clay loam	B03	C	1	Ga.	Ben Hill	163	SCS	NE	U	246	46	26	4	59	43	64			
Susquehanna sandy clay loam	B03	C	1	Ga.	Ben Hill	164	SCS	N	U	246	46	26	4	53	44	5B	61	--	--
Tifton sandy loam	75B	B	1	Ga.	Bulloch	105	SCS	W	M	245	45	22	3	52	25	B1	75	--	--
Tifton sandy loam	75B	B	1	Ga.	Bulloch	107	SCS	SW	M	245	45	22	4	57	35	70			
Tifton sandy loam, thin solum	760	B	1	Ga.	Mitchell	42	SCS	O	L	26B	50	2B	5	6B	47	70	70	--	--
Wahee fine sandy loam	763	A	1	Ga.	Screven	40	SCS	E	U	240	40	29	5	70	45	74	74	--	--
Weston fine sandy loam	839	A	1	Ga.	McIntosh	71	SCS	O	V	257	52	34	5	66	42	72			
Weston fine sandy loam	839	A	1	Ga.	McIntosh	74	SCS	O	V	257	52	34	4	61	38	71			
Weston fine sandy loam	B39	A	1	Ga.	McIntosh	75	SCS	O	V	257	52	34	4	69	44	73			
Weston fine sandy loam	B39	A	1	Ga.	McIntosh	7B	SCS	O	V	257	52	34	5	70	50	70	70	3	4
Weston fine aandy loam	B39	A	1	S.C.	Jasper	142	SCS	--	--	24B	47	30	5	70	48	71			
Weston fine sandy loam	B39	A	1	S.C.	Jasper	159	SCS	--	--	248	47	30	B	67	51	66			
Weston fine sandy loam	839	A	1	S.C.	Jasper	160	SCS	--	--	24B	47	30	7	64	47	66			

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APPENDIX D TABLE 10 - SOIL-WOODLAND SITE CORRELATION PLOT DATA FOR THE COASTAL PLAIN RESOURCE AREA OF GEORGIA, SHORTLEAF PINE

SOIL TYPE [1] 1	SOIL NO. 2	SLOPE CLASS 3	EROSION CLASS 4	PLOT IDENTIFICATION				ASPECT 9	PLOT POSITION 10	FROST FREE DAYS 11	AVERAGE PRECIPITATION		NO. OF TREES MEASURED 14	AVG. HT. OF TREES IN PLOT 15	AVG. AGE OF TREES IN PLOT 16	SITE INDEX 17	AVG. SITE INDEX ALL PLOTS 18	STANDARD DEVIATION 19	VARIATION COEFFICIENT 20
				STATE 5	COUNTY 6	NUMBER 7	SOURCE 8				ANNUAL 12	GROWING SEASON 13							
Boswell sandy loam	705	B	2	Ga.	Houston	69	SCS	NW	M	225	49	25	3	52	34	64	64	--	--
Eustis loamy sand	714	A	1	Ga.	Dougherty	153	SCS	V	V	249	50	28	3	53	33	62	62	--	--
Gilead loamy sand	776	B	2	Ga.	Twiggs	79	SCS	NE	U	225	49	25	3	62	33	77	77	--	--
Greenville sandy loam	721	B	2	Ga.	Houston	65	SCS	SE	U	225	49	25	4	58	44	64	64	--	--
Greenville clay loam	722	C	3	Ga.	Calhoun	706	SCS	W	U	242	50	26	5	60	31	77			
Greenville clay loam	722	B	3	Ga.	Twiggs	18	SCS	SW	U	220	45	25	5	55	25	78	78	--	--
Henderson cherty sandy loam	777	C	2	Ga.	Randolph	66	SCS	E	M	242	50	26	5	59	36	70			
Henderson cherty sandy loam	777	D	2	Ga.	Randolph	67	SCS	NW	M	242	50	26	4	60	37	70	70	--	--
Hoffman sandy loam	723	B	2	Ga.	Twiggs	60	SCS	SW	U	225	49	25	3	54	47	55	55	--	--
Lakeland sands	737	D	1	Ga.	Stewart	61A	SCS	SW	L	242	50	25	4	61	23	92	92	--	--
Local alluvial land, moderately well drained	768	B	1	S.C.	Aiken	317	SCS	--	--	247	43	28	2	63	45	67	67	--	--
Magnolia sandy loam	743	A	1	Ga.	Dougherty	39B	SCS	NW	L	249	50	28	4	61	35	75			
Magnolia sandy loam	743	B	1	Ga.	Houston	63	SCS	NW	U	225	48	25	4	56	28	76	76	--	--
Orangeburg sandy loam	749	B	1	Ga.	Randolph	55	SCS	SE	V	242	50	26	5	59	27	81			
Orangeburg sandy loam	749	C	3	Ga.	Houston	67	SCS	S	M	225	49	25	4	58	27	80	80	--	--
Vaucluse sandy loam	820	B	1	Ga.	Stewart	60B	SCS	SE	U	242	50	25	3	56	31	73	73	--	--
Vaucluse-Gilead loamy sand	761	C	2	Ga.	Twiggs	21	SCS	S	U	220	45	25	5	58	35	70	70	--	--

FOOTNOTES FOR TABLES 1 THROUGH 10

* Tentative soil name

-- Information not available

Column

1 Soil Type - Self explanatory

2 Soil Number - Is number used on soil survey field sheets to represent soil.

3 Slope Classes - See Appendix C.

4 Erosion Classes - See Appendix C.

5 State - Self-explanatory.

6 County - Self-explanatory.

7 Number - Is plot identification number used on field data sheets.

8 Source: FS - Forest Service; SCS - Soil Conservation Service; UG - University of Georgia Experiment Stations School of Forestry.

9 Aspect - Example: NW - Northwest.

10 Plot Position - See Appendix C.

Columns 11 through 20 - Self-explanatory.

[1] For explanation of headings and columns see footnote at end of Appendix D.

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